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ABSTRACT

This manual on developing teamwork at the computer provides cooperative learning activities for grades K-10 which promote the development of academic, computer, and social skills. The manual is divided into three sections: (1) "Getting To Know Each Other"; (2) "Group Cohesion"; and (3) "Group Problem Solving." The first group includes 10 activities designed to set the stage for cooperative work in a team as students become acquainted with each other and share information about themselves. The second group provides 10 activities designed to help students establish a team identity. They are also intended to develop communication, trust, and a feeling of belonging which will enable a group to work together later with subject area content. The eight activities in the third section are designed to foster students' thinking together and developing such skills as listening to others and asking questions. Students focus on a particular problem and participate in a successful solution. Each activity includes a specification of grade level, time requirement, material requirements, and student prerequisites; an introduction to the lesson; procedures for group tasks, closure, and extension; teacher notes; and student worksheets. The appendixes include a directory of software requirements for each activity, including the publisher's address; and an order form for this book. (GL)

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Partnerships:

Developing Teamwork at the Computer

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About the Author

Mary Anderson received her Masters Degree in Special Education at San Francisco State University. She has taught in California, Virginia, and Hawaii. Mary has been a trainer and consultant on cooperative learning and computers. She is a co-author with Mary Male and Roger and David Johnson of *Cooperative Learning and Computers: An Activity Guide for Teachers*, and with Mary Male of *Fitting In, Cooperative Learning in the Mainstream Classroom.*

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Book Order Form

Computer Lesson, Grade Level, and Software

Computer Lesson	Grade Level	Software
GETTING TO KNOW EACH OTHER		
I'm Proud	1 - 3	Square Pairs
Introduce Yourself	2 - 6	Print Shop
Octopus	2 - 6	MousePaint
Who Am I?	2 - 6	EZ Pilot II or Ten Clues
Our Strengths	2 - 6	Print Shop
Important Qualities	2 - 6	MousePaint
Birthdays	3 - 6	Easy Graph
Who Fits in the Puzzle?	3 - 6	Crossword Magic
Favorite Ice Cream Flavor	3 - 6	Easy Graph
Name Tags	2 - 9	Newsroom
GROUP COHESION		
Feelings	k - 6	MousePaint
Team Name	1 - 6	Certificate Maker
Forced Choice	2 - 6	Easy Graph
Dinner Party	2 - 6	Magic Slate
Perfect School	2 - 6	Magic Slate
Team Badge	3 - 6	Newsroom
State Feelings on a Group Cartoon	3 - 6	Create with Garfield
Information about Group Members	4 - 6	AppleWorks
Making a Group Limerick	5 - 8	Magic Slate
Finding Common Interests	3 - 9	MousePaint
GROUP PROBLEM SOLVING		
Bagels	3 - 7	Bagels
Education	4 - 6	AppleWorks
Logical Thinking	4 - 8	MousePaint
Drawing Idioms	4 - 8	MousePaint
Listen and Draw	5 - 8	MousePaint
Italian Lunch	6 - 9	AppleWorks
Word Puzzles	6 - 9	EZ Pilot II or Ten Clues
Mystery Game	7 - 10	EZ Pilot II

Introduction

An overview giving the rationale for the lesson activities, as well as some ideas for classroom organization and lesson implementation.

Cooperative Learning

Many educators are recognizing the value of having children work together to learn and practice academic concepts and social skills. Cooperative learning has been shown to improve children's academic achievement, retention of learning, and conceptual thinking. Research studies also show that children who have had experience working in small collaborative groups have increased self-esteem, increased understanding of others, improved ethnic relations, and a better attitude toward school.[1]

With Computers

Benefits from cooperative learning can be added to computer lessons. Johnson, Johnson, and Stanne found that "cooperative learning with computers promoted greater quantity and quality of daily achievement and more successful problem solving. Cooperative learning resulted in higher performance on factual recognition, application, and problem-solving test items than did competitive learning or individualized learning with computers."[2]

Teambuilding

Putting children together to work at the computer is not enough. They need to feel a commitment and concern for others in their group. When responsible for their own and each others learning, they learn to understand each other as well as master academic content. Working together with the emphasis on teamwork makes the experience a positive one.

Purpose of this Book

Partnerships is designed for teachers using computers. It is a cooperative approach to computer lessons for regular, mainstreamed, and special education students in elementary and junior high school. By using software and the included worksheets, and by following the steps outlined in a lesson, a teacher can facilitate the social growth and collaborative skills needed by children to work in groups. When students learn to communicate, to trust, and to respect each other as unique individuals, they can function effectively and cooperatively at the computer. These lessons are designed to encourage development of these skills.

[1] Johnson, R.T., Johnson, D.W., & Stanne, M.B. (1986). "Comparison of computer-assisted cooperative, competitive, and individualistic learning." *American Educational Research Journal*, 23(3), pp. 382-392.

[2] Ibid.

Your Software

Use the word processing, graphics, and data base software available to you. These lessons use Apple IIe programs as examples. Many of the listed software programs are available for other computers. If you don't have the software which is suggested you may have a program that will work just as well. The list of software, publishers, and lessons in which each piece of software is used, is found in the appendix.

Adapt Lessons

These lessons may be used as a springboard for further computer lessons. Use them as designed or adapt them to fit specific classroom situations. Use the ideas for presenting other software, or add similar worksheets to lessons already being taught. Be sure to ask questions at the end of your lessons which elicit student reactions to the learning process and the content of the lesson.

Number of Computers

When the number of computers listed in the lessons are not available, consider how the same assignment could be done with a little reorganization. Many times groups can do preliminary work and then move to the computer after their planning has been done.

Keyboarding Skills

If students do not have keyboarding skills consider having paraprofessionals or older students do the typing. By using this technique many of the lessons can be done in primary classrooms. Suggested grade levels for each lesson are listed at the beginning of this book.

Room Arrangement

The perfect room arrangement should have enough space for three or four students to huddle around the computer with a clear view of the screen. Since students will be sitting and talking together it is also advantageous to have space between computers.

Planning

Teachers will need to collect needed materials and consider the size and formation of groups before presenting the lesson. Practice with the software is essential before the lesson begins. Become familiar with the lesson and its goals and procedures.

Forming Groups

Most of the lessons assume that students are in assigned groups. It is suggested that teachers use either randomly selected groups or teacher assigned groups. Selected groups should stay together for several cooperative lessons. All groups should be heterogenous. Mixed abilities will enrich the lesson and provide more learning for everybody. Students should not select their own group members. Academic ability, organizational skills, computer expertise, collaborative skills, and ethnic background should be considered when composing groups. Numbering off students, selecting playing cards or matching clues, such as matching *Edison* with *Light bulb*, are ways to randomly select students for groups. One of the benefits of randomly selected groups is that children do not get earmarked according to their academic abilities. Using teambuilding activities as introductory activities with each new group and with each unit will facilitate the group interaction and learning.

Introducing the Lesson

It is recommended that the teacher write the academic and social goals and the time limit in a place where students can refer to it throughout the lesson. Social skills should be taught by having students give or role play examples of proper use of the skill. Student roles will need to be assigned. The teacher should be sure that the students understand the task and the directions for the activity.

Student Roles

It is important that everyone is actively involved in the lesson. Giving each student a role will help each member contribute to the group activity. Rotating these roles will allow each student to acquire important group skills necessary in helping any group to function. In the beginning of the year teachers should assign roles. However, by the end of the year, depending on experience and grade level, students may be able to determine and perform roles on their own. The lessons in this manual should include student roles to encourage interdependence and active involvement in the lesson.

Social Skills

Every lesson should provide practice in a social skill as well as the academic skill. Children build life skills as they work in groups with more complex tasks. Therefore, each of the lessons in this manual teaches a specific social skill that is needed for effective group functioning.

Monitoring and Interacting

The teacher's role is to monitor and observe working groups. Recording observations to students' response to the material will be helpful at the end of the lesson. Instead of intervening or explaining a procedure, ask questions of group members so that they discover and solve problems on their own. A teacher's tendency is often to intervene and explain a procedure. Instead ask questions of the group members so they come up with ideas. Interact with the groups to extend students thinking about their academic and/or social learning.

Processing

Every lesson should be discussed at the conclusion of the group work. Lead students to reflect on their own learning and to compare their ideas with others. The discussion should focus on the academic and social goals presented at the beginning of the lesson.

Types of Activities

Use *Getting to Know Each Other* activitiies for getting acquainted. Use *Group Cohesion* activities to build group identity. Use *Group Problem Solving* activities when trust and communication have been established.

Pick and Choose

In the beginning of the year more of the *Getting to Know Each Other* activities are to be done so students learn names of others and know something about them. Each time groups are changed, one or two *Getting to Know Each Other* activities may be needed. If children already know each other well, a *Group Cohesion* activity may be a first activity. The *Group Problem Solving* activities require more complex decision making skills. A strong sense of group identity results if everyone's ideas are heard and valued.

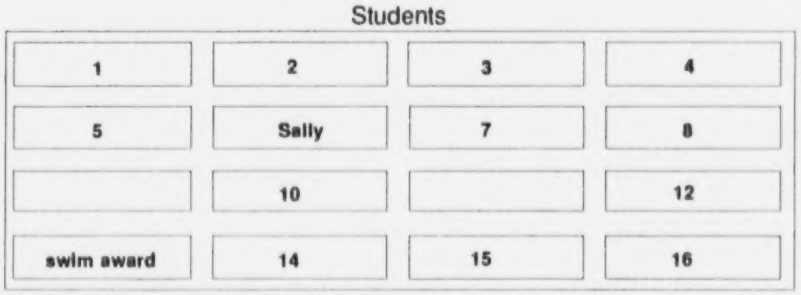
Select a lesson and begin!

Section I
Getting to Know Each Other

These activities set the stage for cooperative work in a team as students become acquainted with each other and share information about themselves.

I'M PROUD

Student assistants or aides help students make and play a concentration game, matching a classmate's name with something the classmate is proud of.



Goals:

To give students practice taking turns
To train students to listen closely and precisely
To encourage students to identify, share, and appreciate positive qualities of self and others

Grade Level: 1 - 4

Time Required: 10 minutes to create game; 35 minutes to play game and process*

Materials Needed:

One copy of *Square Pairs* for each group of eight students
One data disk for each group

Introduction to the Lesson:

1. Discuss an Olympic star, such as Mary Lou Retton, or another young person, who has developed a skill through hard work and practice.

2. Discuss things that young people do which they are proud of. They are to consider:

Things done for family and others,
Awards they have won,
How free time is spent,
Their beliefs,
Positive habits,
Ways money is earned,
Things they've learned.

3. Tell students they will be making a game that will have their name matched with something they are proud of. An assistant will help them do this but they will be responsible for taking turns. Discuss what will happen if someone doesn't get their turn? (They won't have their name in the game.) Discuss how a person might feel if their name wasn't in the game.

One computer for each eight students
An aide or older student assistant for each group of eight students
One set of instructions for each assistant (see below)

Student Prerequisites:

Students in preassigned groups of eight
An aide or older student trained to create the *Square Pairs* game.

*Time may be extended. If everyone plays all the games they will need ten minutes for each group that made a game. More than one day can be used to play the games.

4. The other skill they will need is listening. Tell students they will be listening to their classmates give the information that will be the answers when they start playing the game. Listening will help them earn team points when they play the game. Discuss what they can do to help them listen.

5. Tell students they will have ten minutes to make their game. Direct students to computer areas.

Group Tasks:

1. Each group meets with an assistant to create a *Square Pairs* game. Using a grid of sixteen squares, the names of eight students plus the matching information of what they are proud of is inserted into the software. Assistants type in the information and save the game on a disk.

2. After the games have been created give students directions for playing the games:

"The assistant at your computer will divide you into two groups. You will have two minutes to decide on a team name. Do this now."

3. Continue after two minutes:

"The assistant at your computer will type in the two team names and you will play the *Square Pairs* game you have made. You will have ten minutes to play. Each team of four people may talk together to decide on the numbers they are to use. Give each person in your group a chance to tell the assistant which numbers will be entered."

4. After ten minutes direct students and the assistant they have been working with, to move to the computer on their right. They will play this new game for 10 minutes. They will continue to rotate until they have played all the games.

Closure:

1. Ask random students to tell something one of their classmates is proud of.

2. Why was listening and taking turns important?

3. Can you describe other situations where listening and taking turns is important?

4. How can listening and taking your turn help you?

Extension:

1. Play the games another time keeping track of the points each team gets.

Teacher Notes:

1. Initialize a disk for each game by going to Disk Aids. This will be necessary in order to save the games that are created.

2. Children in younger grades may work four in a group using partner teams. Older children may do their own typing when making the game.

3. Later in the year this activity could be repeated with the students doing the typing themselves.

Instructions for Square Pairs

MAKING A GAME:

1. Boot up *Square Pairs*.
2. Go to **Make a New Game**. **Return.**
3. Type **Proud Classmates**.
4. Type **4**. **Return.**
5. Follow instructions to insert names and proud words:

   For example, type **Brian**. Type **swim award**.
6. Go to **Save Your Game**. **Return.**
7. Put initialized disk in drive 1. **Return. Return.**
8. Go to **Play the game immediately**. **Return.** Follow directions below starting with number eight.

PLAYING A GAME:

1. Put *Square Pairs* in drive 1.
2. Turn on computer.
3. Use arrow keys to go to **Select Another Game**.
4. Put data disk in drive 1.
5. Press **Return.**
6. When arrow is on **Proud Classmates** press **Return.**
7. When arrow key points to **Play Proud Classmates** press **Return.**
8. Type in the team name for player #1. Press **Return**.

9. Type in the team name for player #2. Press **Return.**

10. Pick number of box. Type in number. Press **Return.**

11. Type in number of 2nd box. (You are looking for a name and a proud word that go together.) Press **Return.**

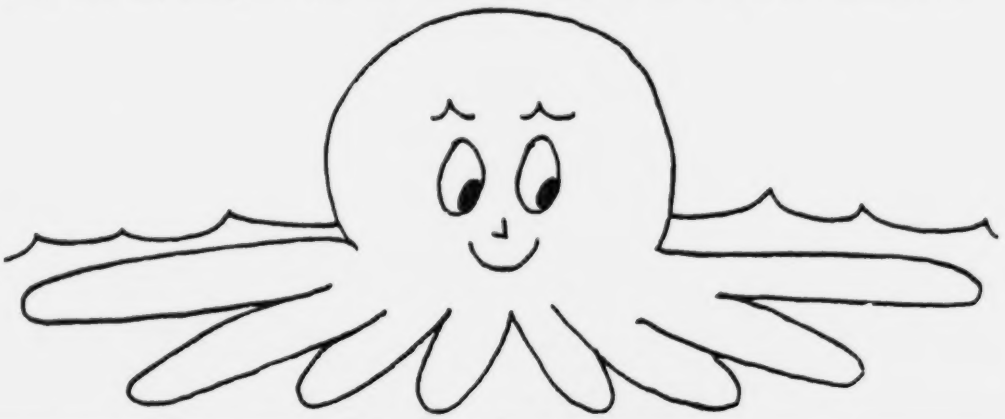
12. Press **Return**.

13. Continue taking turns and entering numbers. Always press Return after you have entered your number.

14. If you get a match you will get another turn.

OCTOPUS

Students identify the good qualities of each group member and of themselves.



Goals:

To give students practice using classmates names
To enable students to give positive feedback to each other (i.e. saying honest, sincere, nice things to other members of your group)
To encourage students to feel good about themselves

Grade Level: 2 - 6

Time Required: 50 minutes

Materials Needed:

One graphics program, such as *MousePaint,* per group

Introduction to the Lesson:

1. Talk to students about different people having unique qualities. Often friends are selected on the basis of one's liking these particular qualities.

2. Ask students what qualities they look for when they select a friend.

3. Tell students that sometimes friends are not made because we don't get a chance to get to know a person very well. Sometimes we think that we won't like someone. This may be based upon what other people say about them, or upon the way they look.

4. It is really important to get to know people and then to make our own decision about who we like and don't like as friends.

5. Tell students that they will be working in groups of four to complete the following activity.

6. Each group will retreive the octopus file. Each group member will have its own octopus. Type a group member's name on the head of the octopus. Take turns

One computer per group
One printer

Student Prerequisites:

Students in groups of four
Knowledge to operate *MousePaint* software

typing two things each group member likes about the person whose name is on the head. These good qualities are typed one to a tentacle. The member listed on the head will also add two things they like about themselves. Repeat process for all four group members.

7. Once done, each person will look at the member whose name is on the octopus. They will use the person's name and say the two things they have written on the tentacles. For example: Lily, I like the way you are so friendly and so enthusiastic.

8. Discuss the idea of being kind and focusing on positive things. It is important that each group member really think carefully about what to write about each person.

Group Task:

1. Boot up *MousePaint*.

2. Retrieve file *Octopus*.

3. Put the name of one group member on head of the octopus.

4. Take turns typing in two good things you like about the person whose name is on the octopus.

5. When all tentacles are filled in, have group members share what they like about that person and why they like that characteristic in their group member.

6. Print the octopus.

7. Go back and do steps three through six for each group member.

Closure:

1. If individuals would like to share their octopus with the class, they may do so now.

2. Hang up the octopuses on a large sea background bulletin board in the room.

3. Students are to respond to the following:

What new things did you learn about your team mates?

How did you feel when you saw your octopus filled in?

Why might it be more difficult for you to think of positive characteristics for your team members or for yourself than to think of negative characteristics?

What can other classmates do to help us feel good about our strengths?

What do some classmates do that make us forget about our strengths? How can we prevent that from happening?

Teacher Notes:

1. Prepare a file called Octopus for the MousePaint software program.

2. If students and teacher are not familiar with MousePaint, they will need to spend time with it before beginning this lesson.

WHO AM I?

In a small group, students work to identify their classmates from the information presented in the software program "Who Am I?". This is an activity that can be done throughout the year; new open-ended questions could be developed for later in the year.

Who has two cats?

Who has won science awards?

And likes CB radios.

It's Nadja.

Goals:

To provide students an opportunity to learn more about their classmates
To build students communication skills

Grade Level: 2 - 6

Time Required: 15 minutes to complete worksheet prior to the lesson,
30 minutes for lesson.

Materials Needed:

One computer per group
One "Who Am I?" program using *Ten Clues* by Sunburst or an authoring system such as *E-Z Pilot II* by Hartley, per group (see below)

Introduction to the Lesson:

1. Give three clues about yourself; after each clue ask who in the class fits this description. For example:

   Who plays the French Horn?
   Who likes to go to Hawaii?
   Who was born in Wisconsin?

2. Tell students they will be using a software program called "Who Am I?", and the object is to guess, in as few guesses as possible, the person in their room who fits the description.

3. Practice the social skills of using a calm voice, and giving a reason for selecting a particular person as the one described. Discuss what might happens if a calm voice is not used, and why giving a reason for selecting a particular person might help the group .

4. Discuss with the whole class the process of getting acquainted with one another and discovering the unique background and interests of each person.

Completed information sheets from each student (see below)
One group worksheet per group (see below)
Observation sheet for teacher (see below)

5. State that the software program "Who Am I?" uses *Ten Clues* or the *E-Z Pilot II* disk. They will have a worksheet at their computer to guide them as they work.

6. Assign students to groups and computers.

Group Tasks:

1. Students disperse to their small groups. They boot up the software and begin work on "Who Am I?"

2. Students use the worksheet along with the software.

3. Teacher observes groups for using calm voices and stating reasons for their answers. Observations are documented on an observation sheet.

Closure:

1. The teacher leads a whole group discussion of things students discovered, from the clues, about their classmates.

2. Why is it important to find out the special skills and talents of other classmates?

3. Report on using calm voices and classmates stating a reason for their ideas in your group? How was this helpful?

4. In what other situations should these skills be practiced? How would you do this?

Teacher Notes:

1. A Student Information Sheet needs to be completed by each student **prior to this lesson**. The teacher uses this information to prepare the software program "Who Am I?" also **prior to this lesson**.

2. When students fill in the information sheet they may orally give some of the information to the class. Then several days later when the class plays "Who Am I?" they can recall the information. This is especially helpful if all students are new to each other.

STUDENT INFORMATION SHEET

Name_____

Please fill in the following information:

Where were you born? _____

What is the farthest place you have been to? _____

What pets do you have and how many?_____

_____

What languages do you know? _____

What instruments do you play?_____

What teams are you on? _____

What would you like people to know about you?

_____

TEACHER OBSERVATION SHEET

Anecdotal Comments

Groups	Calm Voices	Stating Your Reasons
I		
II		
III		
IV		

Student Worksheet

Use "Who Am I?" and fill in below:

Student	One Thing About Them	Number of Guesses
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Stop work with the software and, as a group, fill in the following:

List examples of group members who explained why they wanted to guess a particular person.

How did you solve any disagreements or problems in your group today?

Teacher Preparation for "Who Am I?"

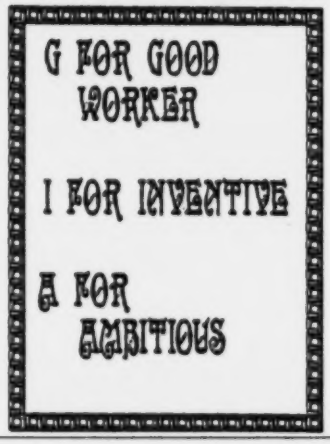
The program "What Am I?" on the E-Z Pilot II disk by Hartley can be used to create "Who Am I?". The lines that are circled are the ones that need to be changed to put in the clues for your particular class members. Use the student information sheets for selecting clues which will describe the students in your classroom. You may put clues for many students on the disk. The following sample shows you two.

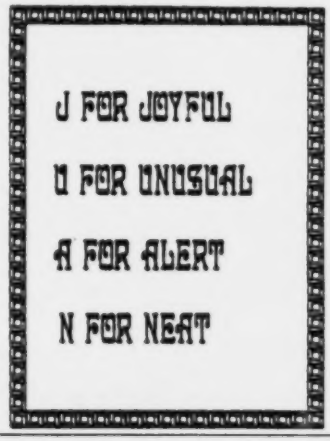
```
1 R :WHO AM I?  This
2 R :was written as a warm up
3 R :cooperative learning.
4 R :activity.
5 GB:6
6 T@:11,10
7 T :EC5Who am I?  (Simultaneously press control and E; also control and C)
8 W :3
9 GB:0
10 GC:4
11 S :192,255
12 T :CMWho has been          to Greece
13 A :
14 M :David,DAVID
15 T :
16 TY :Wow, you got it!
17 JY:*W
18 TN:Maybe, but not what I was thinking.
19 T :
20 T :And has a               guinea pig
21 A :
22 M :David,DAVID
23 T :
24 TY:Wow, you got it!!
25 JY:*W
26 TN:Sorry, try one more guess.
27 TN:
28 T :And speaks             Hebrew
29 A:
30 M:David,DAVID
31 T:
32 TY:You got it .. SUPER!
```

```
 33 JY:*W
 34 T :It's David!
 35 *W:
 36 W :5
 37 GW:
 38 S :153,200
 39 T :6Who was born          in Kentucky
 40 A :
 41 M :Alcides,ALCIDES
 42 T :
 43 TN:Well, maybe ... but try again.
 44 TY:WOW!  You got it.
 45 JY:*E
 46 T :
 47 T :And plays on the
 48 T :Bulls baseball team
 49 A :
 50 M :Alcides,ALCIDES
 51 T :
 52 TY:Ahhh!  Right.
 53 JY:*E
 54 TN:No, this is your       last guess.
 55 T :
 56 T :And has 4              turtles
 57 A :
 58 T :
 59 M :Alcides,ALCIDES
 60 T :61 TY:WONDERFUL!!!
 62 JY:*E
 63 T :Alcides—a new          student
 64 *E:
 65 W :5
 66 GW:
 67 T :Well, I must go now.
 68 T :I hope that you        enjoyed this.
 69 S :50,50,200,200,200,200,200,200
 70 E :
```

Focusing On Strengths

Group members identify their positive characteristics on a sign as they describe themselves to their group.





Goals:

To promote students sharing personal qualities in a group
To encourage appreciation of each other
To increase students active listening skills

Grade Level: 2 - 6

Time Required: 10 minutes per student during the day to make sign; 20 minutes with all group members together

Materials Needed:

One printing program such as *Print Shop* by Broderbund, or *Super Print* by Scholastic

Introduction to the Lesson:

1. Begin by describing a student in the class: "I know someone in this room who always does her homework. Even when she has a soccer game in the evening she turns in her completed work the next day. Who could this be? We could call this person dependable."

2. "I know another person in this class that has made a great three dimensional model for his science project. He used clay for the dinosaurs, and used fringed paper to make the trees. Who could this be? We could call this person creative."

3. Discuss other qualities such as:

   cheerful, friendly, enthusiastic, helpful, honest, courteous, loyal, witty, artistic.

Note that good qualities can refer to academics, athletics, or character traits.

4. Directions to students: "Today you are to think of your own good qualities. Write the letters of your first name vertically. Then beside each letter write 'for' and an adjective that describes you."

One computer
One printer

Student Prerequisites:

Previous experience running the printing program

5. Students are to plan their words on paper, then use the printing program to make up their list of qualities.

6. Discuss the time schedule for completion of their work and the procedure for using the computer. It is suggested that two people work on one computer; one person entering data as the other student dictates his own data to the keyboarder.

Group Tasks:

1. After computer work has been completed, bring the class together to give the group assignment. Students are to get together with their groups and present their list of qualities.

2. Students work in small groups. Each student presents their list. Other group members are to look at the speaker, and focus on the qualities being presented. After the speaker finishes, students may give examples of situations they have observed where the speaker was doing something on the speaker's list.

Closure:

1. With the whole class have groups report on some of the positive qualities present in their group members.

2. Have others report on whether they felt they used eye contact when the speaker was presenting, and whether people in their group could give the speaker examples of good qualities.

3. What are some things you find you have in common with other classmates?

4. Now that you have heard from everyone, is there something else you realize you could have included?

Extension:

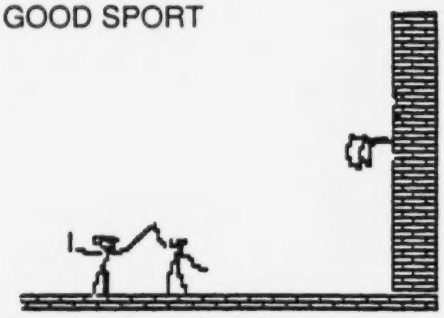
1. Put signs in a binder and make this available to students during free time.

IMPORTANT QUALITIES

Students in a group of four generate a list of qualities they would look for in a friend. Then they illustrate these qualities.

HELPFUL

GOOD SPORT



Goals:

To allow students to come to agreement on shared priorities
To give students experience creating a group product

Grade Level: 2 - 6

Time Required: 50 minutes

Materials Needed:

Colored toothpicks or strips of paper (1 color for each four students)
One computer per group
One software program with graphics, such as *MousePaint*, per group
One printer

Introduction to the Lesson:

1. Introduce the topic by discussing certain people that stand out as quality people; people who one can admire as well as enjoy being with them.

2. Students share one or two favorite people and tell why they are favorites.

3. Have the class, along with the teacher, generate a list of positive qualities which characterize quality people, such as fairness, dependablity, understanding , good listener, and flexiblity. Discuss these qualities and give examples.

4. Tell students they will be working with three others to make a list, on *MousePaint*, of three positive qualities they would like in a friend. Then they are to illustrate these qualities. All people are to agree on the qualities and to sign at the bottom to indicate this agreement.

5. Review booting up *MousePaint*, clicking the mouse to start the program, adding text, drawing with the crayon, and erasing.

Student Prerequisites:
Familiarity with the software

6. Pass out colored toothpicks. Students find three other students who have the same color toothpicks.

Group Tasks:

1. Students discuss and come to agreement on qualities they think are important in a friend.

2. Using text the qualities are typed on the screen.

3. Using the crayon the qualities are illustrated.

4. The work is printed out and the hard copy is signed to indicate all group members know and agree with the list.

Closure:

1. Students report on the qualities they decided were important, and show their drawings.

2. What qualities did you discover you valued?

3. How might you work on developing a specific positive quality you want in yourself?

2. Students report on the process of coming to agreement on the qualities they chose within their group.

3. Group goals are developed, from the problems that emerged, for the next session when students will be working together.

Extension:

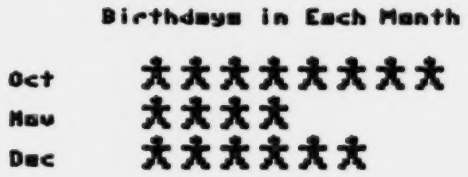
1. Students generate other lists of qualities they would look for in a teacher, brother, sister, grandparent, or pet.

Teacher Notes:

1. For students unaccustomed to working in a group, it may be advantageous to begin work in groups composed of two members.

BIRTHDAYS

Students divide into groups according to the season of their birthday. They poll each other as to the month of their birthday and then print it out on a graph. These graphs are combined and displayed to make a class birthday graph.



Goals

To enable students to build group inclusion through involvement in a task
To encourage students to develop effective communication skills

Grade Level: 3 - 6

Time Required: 50 minutes

Materials Needed:

One graphing software program, such as *Easy Graph II* , per group
One data disk per group if computer doesn't have a printer
One computer per group
One printer per class

Introduction to the Lesson:

1. Talk about ages and how old people are. State question and have students write answer on a notecard. All hold up card when requested.

What age can people vote? (18 years)
What age can people drive? (15 1/2 years in CA)
How old is the oldest president ever in the White House? (76 years, Reagan)
How old is the oldest person in the world? (120 years—Guinness Book of World Records, 1987) .

2 Tell students that they will be meeting in small groups to discuss birthdays. They are to:

Find out when everyone in their group has their birth day.
See if anyone has a birthday on the same day as another group member.
Find out whose birthday is very close to the birthday of another group member.
See if anyone has a birthday on a holiday.

After discussion, groups are to make a pictograph of group member's birthdays.

Lesson worksheet (see below).
2 small cards per person.

3. Discuss how they will get to know about other group members' birthdays. Have students describe what it will look and sound like to listen and ask questions to get information on their group members.

4. Tell the class that after graphs are completed the class will reassemble and they will review all the graphs, and check on the listening that occurred in each group.

5. Ask students to line up according to the month of their birthday.

6. Assign students to groups according to the season of their birthday. For example, those with a birthday in January, February, and March will be in one group. Direct groups to their work areas.

Group Tasks:

1 Students in their groups talk about birthdays .

2. Students make a birthday graph using *Easy Graph II.*

3. Students print their graphs.

Closure:

1. Students report on information about birthdays from their group.

2. Students report on listening and asking questions in their group. Teacher confirms reports and facilitates discussion across groups.

3. Students compare, note similarities and differences shown in the graphs from the whole class.

Extension:

1. Students make a bar graph or line graph.

2. Birthday graphs are displayed on a bulletin board.

3. Students write about the topic of age, or birthdays. This writing, plus the birthday graphs, are collected and put in a book that students can read.

BIRTHDAY WORKSHEET

1. Discuss the following:

   When does everyone in your group have their birthday?

   Who has a birthday on the same day as another group member?

   Whose birthday is very close to the birthday of another group member?

   Who has a birthday on a holiday?

2. Boot up *Easy Graph II.*

3. Follow the directions on the software program to:

   Create your own graph.

   Put a data disk in drive 2 if your computer doesn't have a printer.

   Make a pictograph.

   Compare no. of birthdays of several months.

   Title your graph Birthdays.

   Print your graph.

4. Have everyone in your group sign at the bottom of the printed graph to indicate that they know and understand the information in the graph.

WHO FITS IN THE PUZZLE

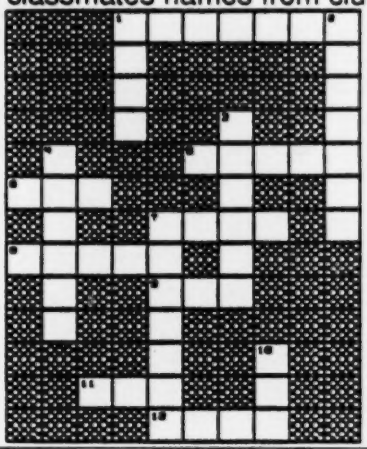
Students complete a crossword puzzle by filling in classmates names from clues about them.

ACROSS CLUES

1. Has gone to this school since kindergarten
5. Doesn't like bubble gum
6. Is an uncle
7. Has flown on a jet
8. Has ridden on a train
9. Has been to Disneyland 5 times
11. Has never had a broken bone.
12. Has a grandparent living with him

WORD LIST: STUDENTS

ADAM
BETTY
CHARLES
CHIN
CHAN
CYNTHIA
DARYL
FABIAN
JOE
KAI



Goals:

To encourage students to appreciate differences in others
To allow students to discover that, despite apparent differences in others, they might have some things in common

Grade Level: 3 - 6

Time Required: 10 minutes for questionnaire; 30 minutes another day for puzzle

Materials Required:

One completed questionnaire per student
One computer*

Introduction to the Lesson:

1. Who has lived the farthest away from this city?
   Who has lived in this city all his or her life?
   Today you will be working with information like this which tells about your classmates.

3. Tell students that they are to complete a crossword puzzle in their small group. The answers from the clues will be their classmates names. If more than one person in the class fits the clue, they will need to use the number of letters in the persons name and any letters that are already in the puzzle to help them get the right answer.

4. They are to make sure all people in their group know the answers to the puzzle, and each person is to sign at the bottom when they are finished.

5. Tell each student the name of one tune, such as *Yankee Doodle, Three Blind Mice, Row, Row Row Your Boat.* (Tell four students at random the same tune.) Have them hum the tune you told them and listen to other students. When they have found three people humming

One printer
One crossword puzzle program, such as *Crossword Magic*
One copy of crossword puzzle per group*

Student Prerequisites:

Students need to have completed questionnaires so teacher can prepare crossword puzzle for this lesson. When students fill out the questionaire, have them give two true statements about themselves. Other students who listen can use this information later when working on the crossword puzzle.

*If many computers are available this lesson can be done with each group working on the crossword puzzle at a computer.

the same tune as they are, they have found their group. (You will need to have the name of a tune ready for each group of four students.)

6. Assign work areas for each group and hand out the puzzle.

Group Tasks:

1. Groups work on completing the crossword puzzle.

2. When it is finished all members sign at the bottom to indicate that they know the information.

Closure:

1. With the whole group together ask each student to tell one thing about one of their classmates.

2. Ask each student to tell one thing he has in common with another student, and to name the student.

3. Ask each student to compare one thing about himself with another student, and to name the student. For example, "Gonzalo has his birthday in September and I have mine in October."

4. Discuss likenesses and differences in people and how this makes people interesting and unique. Stress getting to know classmates and adding to the information they found out today.

Extension:

1. Have students make comparing statements which reveal other positive likenesses and differences they have with their classmates.

Creating a Puzzle on *Crossword Magic*

1. Make list of students and one thing that is true about them.

   For example:

Yung	likes spinach
Nitai	likes the Giants

Use the questionnaires. A data base may be helpful when compiling the information.

2. Boot up *Crossword Magic*.

3. Type **1**.

4. Type **Y**.

5. Enter names of students from your list.

6. Press **Escape**.

7. Type **E**.

8. Type clues to match the students first entered.

9. Turn on printer.

10. Type **P**. **Return**.

11. Type **Students. Return. Return. Return. Return.**

12. Press Return each time the printer stops.

Questionaire for Crossword Puzzle

Name_____

Make a **check** if the answer is **yes** for you.

_____ **I have gone to this school since kindergarten.**

_____ **I don't like bubble gum.**

_____ **I am an aunt or uncle.**

_____ **I have flown on a jet.**

_____ **I have ridden on a train.**

_____ **I have been to Disneyland.**

_____ **I have never had a broken bone.**

_____ **I have a grandparent living with me.**

_____ **I play a musical instrument.**

_____ **I have read Superfudge.**

_____ **I have a birthday in September.**

_____ **I can speak two languages.**

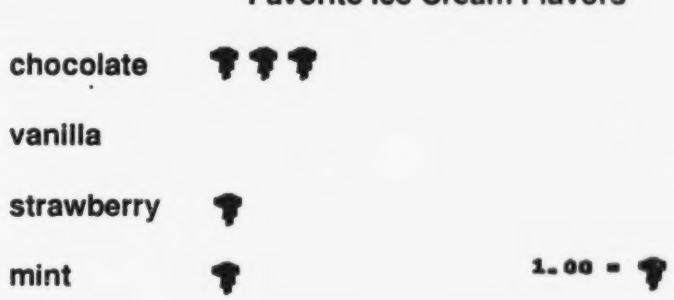
_____ **I like spinach.**

_____ **I want to be a teacher.**

_____ **I like the Giants.**

FAVORITE ICE CREAM FLAVORS

Group members survey each other to find out what the favorite ice cream flavor is for each of them. These choices are then displayed on a graph and comparisons are made to determine the popularity of ice cream flavors.



Goals:

To enable students to learn acceptable ways of expressing their opinions
To enable students to learn to respect others' opinions
To give students an opportunity to develop graphing skills

Grade Level: 3 - 6

Time Required: 50 minutes

Materials Needed:

One computer per group
One software program for making a graph, such as *Easy Graph* , per group
One instruction sheet for using *Easy Graph* per group (see below)

Introduction to the Lesson:

1. Show pictures of several ice cream sundaes and talk about the pleasures of eating ice cream.

2. Tell the class they will be taking a survey of favorite flavors of ice cream for people in their group. To do this it is necessary that you give your opinion as well as listen to the opinions of the other group members. What would happen if each person gave their opinion at the same time? Discuss ways to speak and listen to others.

3. Discuss with the class appropriate responses to group members who like the same ice cream flavor they do, or who choose ice cream flavors that they dislike. Discuss how to respect the choices of others when they do not agree with the other person's choice.

4. Directions to the students: "Today you will be working with your group to listen to the ice cream flavors that each person in your group has as their favorite. Then, using *Easy Graph*, you will make a picture graph of favorite ice cream flavors. Instructions for making the graph will be at your assigned computer."

One printer for the class (optional).
One evaluation sheet for each student (see below).

Student Prerequisites:

Knowledge of how to run the graph software.

5. Assign students to groups and computers.

Group Tasks:

1. Groups discuss their favorite ice cream flavors. Then they use their assigned computers to make their graph. Each student should record the data for another student in his/her group.

2. Groups print their graph.

3. Using an evaluation sheet group members reflect on their behavior in their group.

Closure:

1. With the whole class assembled groups report on the favorite flavors displayed on their graphs.

2. Random students make comparisons of their favorite ice cream flavor with that of others.

3. Random students report on appropriate ways they responded when someone made a choice they didn't agree with.

4. Discuss why we should use appropriate responses. How would your response affect feelings? Will your response affect communication? Why?

Extension:

1. Using the information from each group make a class graph showing the favorite ice cream flavors of everyone in the class.

Teacher Notes:

1. This same activity can also be used for many other graphing items, such as pets, housing, number of people, favorite toys, etc.

Instructions for Ice Cream Graph

1. Boot up *Easy Graph* program. Press spacebar.

2. Type **1.**

3. Type **1** or **2** (for pictograph or bar graph).

4. Type **2.**

5. Type **popularity**; press **Return**.

6. Type **ice creams**; press **Return**.

7. Type **4**; press **Return**.

8. Decide on four ice cream flavors for your graph.

9. Type one ice cream flavor; press **Return**.

10. Type the number of people in your group who have this as their favorite flavor of ice cream. Then press **Return**.

11. Repeat steps 9 and 10 until all four flavors are entered.

12. Type **Favorite Ice Cream Flavors**; press **Return**.

13. Type **N** if you don't need to change anything.

14. Type **Y** to print.

15 Press **Return**.

Evaluation of Ice Cream Lesson

Name_____

One thing I did when someone in our group mentioned an ice cream flavor I liked was _____.

One thing I did when someone in our group mentioned an ice cream flavor I disliked was_____.

Something new I learned about _____was
(name someone in your group)

that_____.

INTRODUCE YOURSELF

Students are to introduce themselves to their group by making a poster to share with their group. As they listen to others talk about their posters they learn each other's names and something about one another.

Goals:

To enhance student appreciation of their self and of each other
To provide students an opportunity to teach peers

Grade Level: 2 - 6

Time Required: 10 minutes per student during the day to make poster; 20 minutes with all group members together

Materials Needed:

One printing program, such as *Print Shop* or *Super Print*
One computer
One printer

Introduction to the Lesson:

1. Tell students they will be working in groups for some of their assignments. Explain that they will begin getting acquainted by telling their group their names and something about themselves.

2. Directions to students: "Think of a positive descriptive word that starts with the same letter as your first name and tells about you. Use this at the top of your poster. Then type two phrases that tell about you, such as what you like to do, or where you live, or what you do well. Illustrate with a picture that relates to the information on your poster."

3. The printing program will make the posters.

4. Determine the order that students will make their posters, and procedure for notifying the next student when it is their turn.

Student Prerequisites:

Assignment to a group of four members

5. The teacher teaches the first student the program while he or she makes up their poster. That student assists the next student in making their poster. Then the third student assists the next student, and so on, until everyone in the class has made their poster.

Group Tasks:

1. When all posters have been completed, students get together with their cooperative group of four and tell each other about their posters. As others are talking they are to remember names and information about each group member.

Closure:

1. Students are asked to give the name of one person in their group and tell one thing about them.

2. Finally, other students report on people in their group whose interests or experiences are similar to their own.

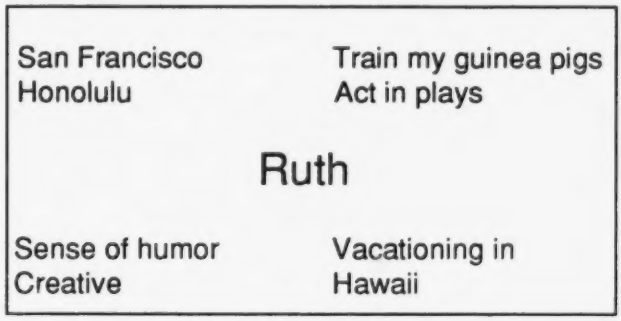
Teacher Notes:

1. For this activity the teacher will need to know how to run the printing program. Check to make sure the printing program is set up to work with your classroom printer.

2. When first selecting a student for instruction in Print Shop consider someone who is computer literate. Also, designate this person as one to whom students may ask for help .

NAME TAGS

Students create a name tag which gives information about themselves. Then they share this information with others.



Goals:

To provide students with an opportunity to share personal information
To enable students to find things they have in common with classmates

Grade Level: 2 - 9

Time Required: 15 minutes at the computer; 20 minutes with the whole class

Materials Needed:

One graphics program, such as *Newsroom*
One computer
One printer
One person knowledgeable in running *Newsroom* (see below)

Introduction to the Lesson:

1. Tell the class that during the year they will be working with everyone in the class as they work in small groups.

2. Tell the class that this activity will help them get to know people in their class as well as letting others know about them.

3. Directions: "During the day you are to prepare a name tag with the following information:

In the upper left-hand corner type in the name of your favorite place.

In the upper right-hand corner type in two activities that you like to do.

In the middle of the card in large letters put your name.

In the lower left-hand corner type in two adjectives that describe you.

In the lower right-hand corner describe something you are looking forward to doing."

Pins, one per student, for pinning name tags on shirt

Student Prerequisites:

Fifteen minutes during the day to prepare name tag

Give students directions as to when the name tag can be worked on, who will be assisting them (a student or aide that knows *Newsroom*), and how they should schedule time to do this.

4. Print the name tag and add pin so it can be worn.

5. Later assemble whole class and tell them to pin their name tag on their shirt or dress.

6. Explain to the group that they will have fifteen minutes to circulate and talk to others. They are to look for similarities and differences as they get acquainted with other students.

7. Describe the zero noise signal. When you raise your hand students are to stop talking and raise their hand. They are to make sure the person they are talking to does the same.

Group Tasks:

1. Students walk around room asking another student about information on a name tag that is similar to what they have on their own name tag. The next time they walk around asking another student about information on a name tags that is different from what they have on their own name tag.

2. Several times during the period the teacher raises a hand and gives the zero noise signal. Random students are asked to give examples of someone who has similar likes or different experiences.

Closure:

1. Students return to their seats and state one thing they learned about one of their classmates.

2. If you had half an hour to wait for a bus, which classmate would you want to be with you and what would you ask them? (Relate this to their nametag information.)

Lesson idea and name tag criteria used with the permission of the author from Johnson, D.W. *Reaching Out: Interpersonal Effectiveness and Self-Actualization* (2nd Ed.). Englewood Cliffs, NJ: Prentice-Hall, 1982.

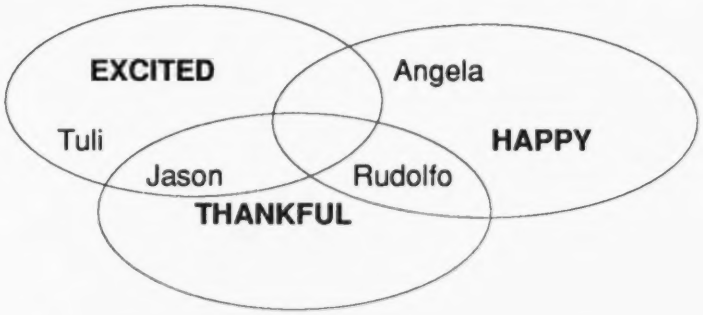
Section II
Group Cohesion

Activities for students to establish a team identity. Development of communication, trust, and a feeling of belonging which will enable a group to work together later with subject area content.

FEELINGS

In a small group students express their feeling on a Venn diagram.

Write your name in the appropriate place.



Goals:

To encourage students to recognize and express their feelings
To enable students to find feelings they have in common with others
To encourage students to develop empathy for others

Grade Level: k - 6

Time Required: 15 minutes

Materials Needed:

One graphics program, such as *MousePaint* per group
One computer, with mouse, per group
Student worksheet

Introduction to the Lesson:

1. Discuss the meaning of the old Indian proverb "Don't judge a man until you've walked two moons in his moccasins". Think about the statements "I'm sure he must have a lot on his mind", and "I've been through that before".

2. Tell the class that today's lesson will help them understand better their own and other's feelings. Sample problem situations will be discussed. Then the group will record shared feelings on a Venn diagram about such problems as "How would you feel if you lost your lunch money?".

3. Tell the class that they will be deciding where to put their name on a diagram. They are to type their names in the part of a circle which describes how they are feeling at the moment. To do this they will use *MousePaint* and a file called Feelings. After all names are recorded, each group member is given the chance to discuss his placement or to pass.

Student Prerequisites:

At least one person in each group needs to know how to work with *MousePaint*

Group Tasks:

1. Groups boot up software.

2. One person in the group constructs the Venn diagram. Another member reads the first problem from the student worksheet. Each member decides how she/he feels and where she/he would like their place on the diagram.

3. Designate one person as keyboarder. The keyboarder types in a feeling word in each circle. She/he also types each group member's name at the place selected by each person.

4. When all the names are in the circles, those who wish to explain about the placement of their name may do so.

5. Repeat this procedure with each of the situations listed on the worksheet. Also rotate roles for each situation.

Closure:

1. Discuss the following questions:

For which problem situation was it hardest for you to identify your feelings?

Did anyone in your group surprise you by answering in the same way that you did?

What difference in behavior might result from a person putting his name in one circle or another?

Extension:

1. Read poems about feelings. Read from *Random House Book of Poetry* by Ralph Prelutsky.

Teacher Notes:

1. When demonstrating the lesson emphasize the significance of the overlapping sections of the diagram.

Worksheet of Problem Situations

1. How would you feel if you got something you really wanted for your birthday?

Feeling words: excited, happy, thankful

2. How would you feel if you broke something important that belonged to your parents?

Feeling words: guilty, sad, embarrassed

3. How would you feel if someone stole your skateboard or bicycle?

Feeling words: angry, revengeful, sad

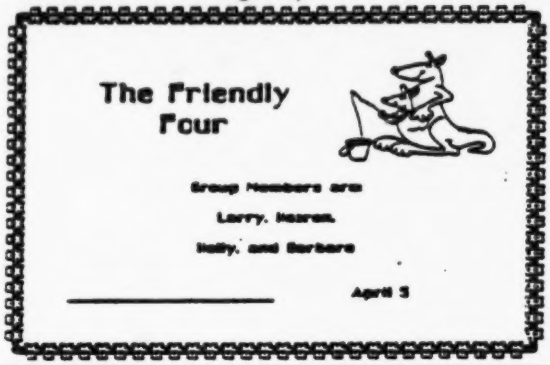
4. How would you feel if you got an A on your math test?

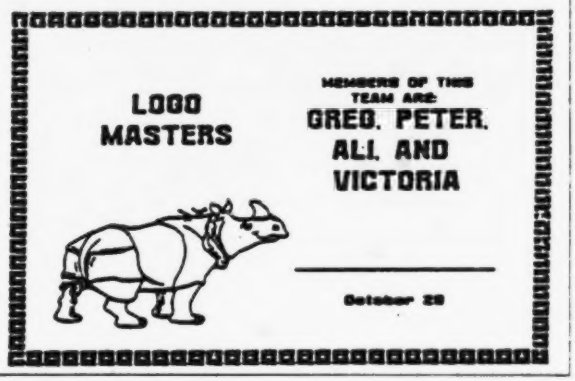
Feeling words: proud, surprised, satisfied

5. Group members are to make up their own situation and feeling words.

TEAM NAME

Students brainstorm team names. After coming to agreement on a name for their group, they use a certificate program to publish their team name and the names of the members of their group.





Goals:

To promote student cooperation and fun
To encourage students to come to common agreement and create a product together

Grade Level: 1 - 6
(Printing assistance required for lower grades.)

Time Required: 30 minutes

Materials Needed:

One computer per class
Certificate making program, such as *Certificate Maker*
Worksheet with certificate choices listed (see below)

Introduction to the Lesson:

1. Have the class discuss names of football and basketball teams that are on TV.

2. Discuss names of teams of which various students are members.

3. Discuss possible reasons for teams picking various names. (For example: "Lions" may sound tough to a team's opponents.)

4. Tell the class that today they will discuss ideas for a team name for their group. The team name is to reflect a common positive quality of people in the group. To find this quality discuss:

Members' names and nicknames,
Where they were born and where they live now,
Favorite colors, and favorite TV shows,
Favorite activities,
Positive qualities or traits of members.

Student Prerequisites:

Student assignment to ongoing groups where they will work for a period of time.

Listen to the ideas expressed by group members. Use someone else's idea and add to it or change it slightly. Your final decision has to be agreeable to everyone in your group.

Group Tasks:

1. Groups get together and discuss ideas for their team name.

2. When group consensus on a name has been reached , record the choices on the worksheet.

3. Groups use the software to print their team name, or groups turn in their worksheet to someone who will assist them or print this for them.

Closure:

1. Each group reports on the name they have chosen and why they picked that name.

2. Display each group's name.

3. Have a few groups report about how they listened to each other and how they made their decisions.

Teacher Notes:

1. This activity may be repeated each time groups are changed.

2. Groups may be encouraged to use names related to the unit of study. For example all team names may refer to the ocean if that is the unit of study.

Extension:

1. Role play situations where a group is not agreeing. Students in their own groups list five possible ways to deal with the problem.

Student Worksheet for Team Name

The name for our team is_____

Circle the one below that you want:

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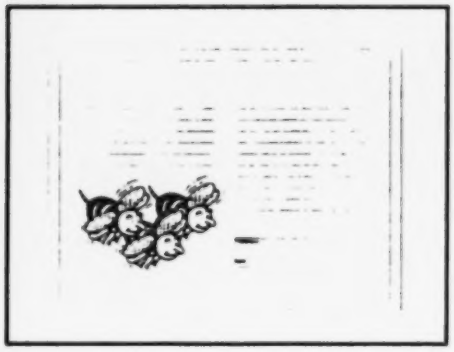

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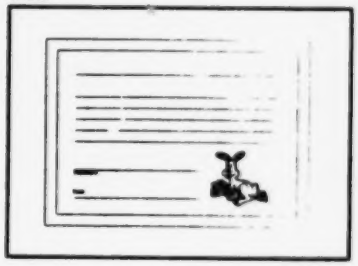

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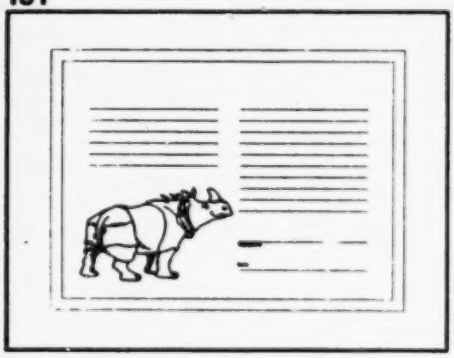

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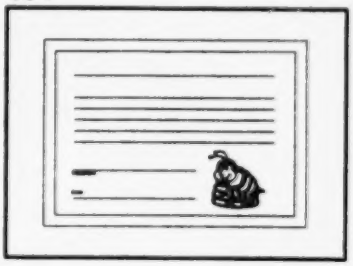

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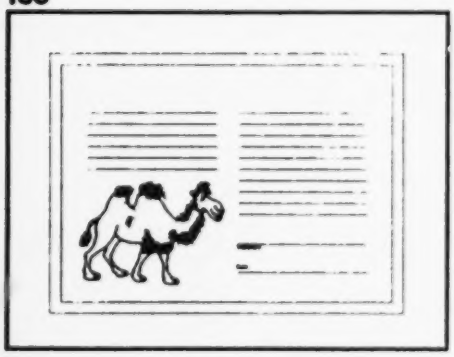

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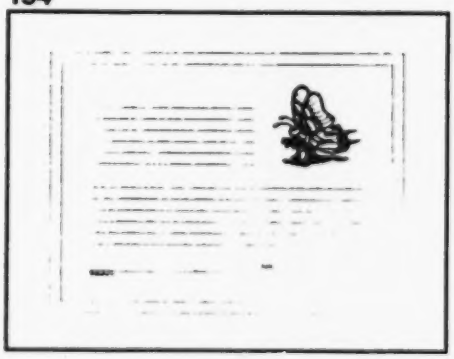

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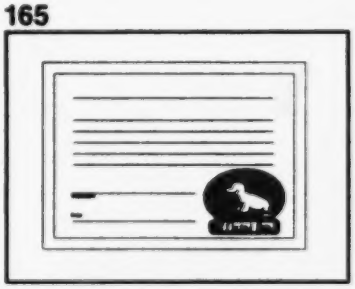


Circle the one below that you want.

This is the SERIF type style
This is the SAN SERIF type style
This is the SCRIPT type style
This is the GOTHIC type style
This is the ART DECO type style

Circle the one below that you want.

Single Line

Double Line

Triple Line

Arabian

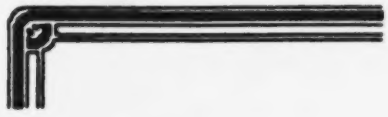
Maze

Spiral

Disk

Legal

Art Nouveau



Victorian

Lace

King Arthur

Persian

Snake

Egyptian

Links

African

Gothic

Weave

Bear

Heart

Duck

Smile

Directions for Printing

1. Boot up *Certificate Maker.*

2. Press **Return** to select **Make Certificate**.

3. Enter the number of the template selected.

4. Select border. Press **Return**.

5. Select title font style. Press **Return.**

6. Press **Control S**.

7. Type team name.

8. Press **Return** until you get a new screen.

9. Type **Members of this team are** _____, _____, _____, **and** _____.

10. Press **Return** until you get a new screen.

11. Enter **date**. Press **Return**.

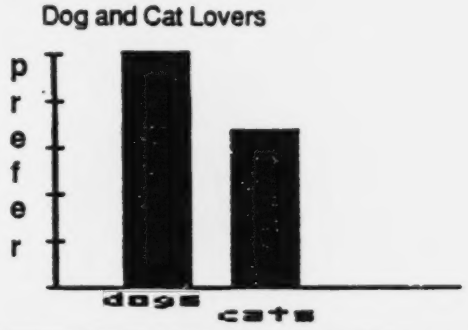
12. Press **Return** on **enter signature line**.

13. Turn on printer.

14. Press **Return** to **Print Certificate**.

FORCED CHOICE

Students individually make a choice between two things in a category. Data from each group is reported and the teacher makes a graph of the choices of all those in the class.



Goals:

To give students experience making their own decisions
To encourage students to reflect upon their choices
To encourage students to accept others who make different decisions

Grade Level: 2 - 6

Time Required: 50 minutes

Materials Needed:

One graphing program, such as *Easy Graph*, per group
One computer
Worksheets to record data (see below)

Introduction to the Lesson:

1. Discuss how it is sometimes necessary to make choices between two or more things. For example:

   What will I do after school?
   What movie will I see with my friends?
   What high school will I go to?
   What job will I train for?

2. Tell the class that today they will make choices. They will be given the two choices and then they will have to select one or the other.

3. Discuss what might happen if a person always expected someone else to make their decisions for them. Discuss learning to think for yourself and knowing that as a child some decisions are made for you.

4. Also discuss how to react when someone has not made the same choice you made. Discuss the fact that many decisions are personal opinion and there may be more than one right way to think or act.

5. Explain that when they hear the two choices today they will poll their group members and record their preferences. When this information is reported to the whole class, the choices which all students made will be put on a graph.

6. Direct students to assemble with their groups.

Group Tasks:

1. The first topic is whether one likes cats or dogs. Each person is to choose between cats or dogs, and record this on the worksheet.

2. Groups report back to the teacher on the number of group members selecting each of these choices.

3. The teacher makes a graph for the class on number of members who preferred cats and number of members who preferred dogs.

4. Continue with other choices. When the teacher gives a choice groups tally the number of group mem bers preferring each choice. Then the teacher graphs the reported responses.

Suggested choices:

Hamburger or Ice Cream
Reading or Math class
Tug of War or Checkers
Motorboat or Sailboat

Closure:

1. Ask students the following:

How did you feel when you had to decide between two things?
How did you feel when your classmates made different choices than you did?
How did you feel when some of your classmates made the same choices as you did?

2. Ask students to complete the following:

   It was difficult to state my opinion when ...
   It was easy to state my opinion when...

3. Discuss: What are some of your important values?

Who or what influences the preferences you have?

Extension:

1. Copy some of the graphs which were produced from the students' decisions. Distribute these copies to each student.

2. Have each group name two choices for selection. Graph these choices.

3. Have each group select two choices in a category. They are to collect data from others and graph this data.

Worksheet for Forced Choice

Poll those in your group.

CHOICE A: _____

Number of group members selecting this choice_____

CHOICE B:_____

Number of group members selecting this choice_____

****

CHOICE A:_____

Number of group members selecting this choice_____

CHOICE B:_____

Number of group members selecting this choice_____

****

CHOICE A:_____

Number of group members selecting this choice_____

CHOICE B:_____

Number of group members selecting this choice_____

****

DINNER PARTY

Students work in groups to create a list of guests to invite to a dinner party.

Guest List

1. Walt Disney
2. Bill Cosby
3. Lady Diana
4. Christopher Columbus

Goals:

To help students build communication skills
To give students experience in group decision making

Grade Level: 2 - 6

Time Required: 50 minutes

Materials Needed:

One computer per group
One word processing program per group, such as *Magic Slate*
One printer

Introduction to the Lesson:

1. Ask students if they have attended a party that included dinner. Ask them to tell what they had to eat and what they did at the party. Share an experience that you've had at a dinner party.

2. Tell students that when you plan a dinner party you must think about who you would like to invite and what you would like to serve your guests. Share your "ideal" dinner party list of four people with them.

3. Tell students that they will be working in groups of four to plan a dinner party guest list.

4. They must all offer suggestions and then discuss them.

5. Everyone in the group must agree with the final list. The list is to be typed and printed.

6. All group members should be able to explain why they chose the guests on their list. Students' signatures on the bottom of their printed list will indicate that they know and agree with the names on the list.

Student Prerequisites:

Assignment to a small group of four members

Group Tasks:

1. Groups boot up *Magic Slate.*

2. Make a new file named Party.

3. Discuss who to invite to a dinner party.

4. Make decisions agreeable to the whole group.

5. Type the list on *Magic Slate.*

6. Print the list and have all group members sign at the bottom.

Closure:

1. Ask students to share their dinner list and reasons for selecting these guests.

2. Have each student answer one of the following:

How did your group make decisions about whom to include?
What were two things that helped you listen to each other?
What were two things you did when you did not agree?
What did you like the most about working together?

Extension:

1. Put the lists in a folder and make this available for all students to read during free time.

2. If you invited two of the people on your list to dinner at your home, what might they talk about? Write an imagined dialogue of the conversation.

PERFECT SCHOOL

Students in small groups design a perfect school.

1. Students who come to school on time every day all year should get a free breakfast at the end of the year.
2. Students should be able to study French for three years.
3. Teachers should have students work on computers every day.
4. Students should wear uniforms.

Goals:

To provide students practice in listening and communication skills
To enable students to experience reaching group consensus
To encourage students to create a common product

Grade Level: 2 - 6

Time Required: 50 minutes

Materials Needed:

One computer per group
One word processing program, such as *Magic Slate,* per group
Card deck
One printer

Introduction to the Lesson:

1. Write these words on the board:

   Subjects to study
   Rules
   Special Activities
   Materials available
   Schedules

Students describe other schools they have attended, using the categories listed on the board. Students comment on positive aspects of their present school.

2. Divide the class into groups of four to design a perfect school for learning. First they will give their opinions of a perfect school. Then they will write a plan for the school.

3. Discuss the skill of listening carefully to others. Ask what good listening involves, such as eye contact with speaker, only one speaker talking at a time.

4. All four group members are to agree on the final plan. Discuss the skills of compromising and talking in a calm voice to provide students with the information they will need to reach agreement.

5. Each person will sign the printed copy of the plan to indicate they know the plan and agree to it.

6. Groups of four are formed by having each person pick a card. (Use four cards of the same number from the card deck for each group of four students. For example, if there are twenty students use a total of five different numbers with four cards of the same number.) Students pick cards and then find three other students whose numbers match the one they have on their card.

7. When each group of four has assembled, they go to a computer.

Group Tasks:

1. Groups talk over ideas for a perfect school. Then they agree on a plan.

2. Groups boot up *Magic Slate* and type in their plan.

3. The plan is printed.

4. All group members sign at the bottom of the hard copy when they know the plan and agree to it.

Closure:

1. Have each group member answer one of the following until all have been answered:
   Who in your group listened to you? How did you know they were listening?
   Did everyone in your group come to an agreement?
   What helped your group come to an agreement?
   What made it hard for your group to come to an agreement?

2. Discuss the process of reaching concensus and summarize effective strategies.

3. Have one person from each group report to the class on the plans created for the perfect school.

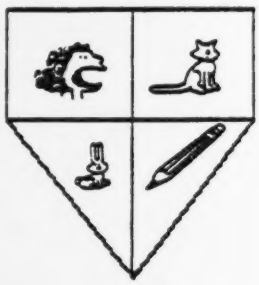
Extension:

1. Examine the lists and implement any possible parts of the perfect school plans in the current school.

TEAM BADGE

Students working in small groups create a team badge representing their group characteristics or interests.

"We all love to talk.
We all have cats as pets.
We are quick thinkers, like
rabbits who are quick.
And we have a pencil as we are all
going to write lots in this class."



Goals:

To enable students to express their ideas
To encourage group members to look at each other and identify shared interests and ideas
To give students an opportunity to work cooperatively on a project

Grade Level: 3 - 6

Time Required: 1 hour

Materials Needed:

One graphics program, such as *Newsroom*, per group
One computer per group
One mouse per group

Introduction to the Lesson:

1. Discuss symbols and the way they represent something about a group. Give examples of symbols such as $ and # . As a group make up symbols for happiness, spring, family, and sports.

Look at your state flag and discuss how each part stands for something important in your state.

2. Explain that each group is to create a badge for their group. They will meet together and discuss their group's common background, interests, characteristics, and goals. They will talk about:

Places they have been,
Things they enjoy doing,
Books they have all read,
What they want to do in the future.

Then they are to discuss how these could be illustrated. Maybe the school has a logo which can be used for a common background. Talk about animals whose characteristics could illustrate the characteristics of the group (bees for busy workers, beavers for industrious workers).

One data disk per group, with badge outline in a file (see above)
One printer per class
One observation sheet (see below)
One timer for teacher*
Cardboard 8 x 11" and glue for mounting printed badge
String or wire hanger for hanging badge

Student Prerequisites:

Student assignment to ongoing groups which will work together for four to six weeks
One person in group with knowledge of how to use *Newsroom*

*Optional timer may make the teacher's job as timekeeper easier.

3. Demonstrate how to use *Newsroom* to create a badge by first getting the badge file and then adding to it. Printing the badge, mounting it, and hanging it above a computer are also demonstrated. (If possible use string or a hanger to hang this above the computer.) Allow fifteen minutes to create the group badge, and ten minutes to get it ready to display.

4. Explain that while groups are discussing and choosing symbols, the teacher will observe and record, for several minutes, people who are talking in the group. Afterwards the observation sheet will contribute toward evaluating how many group members were involved in creating the group product.

5. Each group member will be responsible for explaining the symbols that are on their group's logo.

6. Direct students to get together in their assigned groups and go to computer areas to begin work.

Group Tasks:

1. Teacher will record participation on the observation sheet and will be the timekeeper during the group work session.

2. Groups discuss, for five minutes each, common background, interests, characteristics and goals.

3. Groups discuss, for five minutes, how to illustrate each of these areas.

4. Groups create their badge on *Newsroom*. Time allowed: fifteen minutes.

5. Groups print and mount their badge. Time allowed: ten minutes.

Closure:

1. Groups explain the symbols that were chosen to represent their group.

2. The teacher gives feedback on the observations collected during the group work time. Group members give their opinions on the amount of involvement in their group.

3. Discuss the following:

If some group members were from another country, would it be more difficult to find things that the group had in common?

How does it help people to live together when they know they have some things in common?

How could a person find a friend in a group if he or she didn't share one of the things on the badge?

Extension:

1. The group badge is kept with other group materials and displayed when the group works together.

Teacher Notes:

1. Knowledge of how to use *Newsroom* is necessary for this lesson. Practice with it is essential. It may be taught to a small group of students. These students then use it when working with their groups. One of the advantages in using *Newsroom* is the variety of available graphics.

Observation Sheet

Make a tally mark each time a person speaks.

Group: **Observed Speaker:**

Individuals in group:

_____

1.

_____

2.

_____

3.

_____

4.

_____

STATE YOUR FEELINGS ON A GROUP CARTOON

Groups of four students use a cartoon from *Create with Garfield* to record the way they are feeling at the current time.

Identify with one character. Pick a cloud and add a caption that describes your feelings right now.
I'm ready to work!
I'm tired
I'll help!
I don't want to!

GARFIELD Characters: ©1978, 1979, 1980 United Feature Syndicate, Inc.

Goals:

To help students learn appropriate ways to express their own feelings
To promote student understanding of the feelings of others

Grade Level: 3 - 6

Time Required: 50 minutes

Materials Needed:

One computer for each group
One *Create with Garfield* software per group
One data disk per group with first file called Cartoon (see below)

Introduction to the Lesson:

1. Explain to students that when they get together in their groups each student may be thinking about different things and may have different feelings. This may affect how they act in their group.

2. The activity for today will involve each group member identifying with a character in a cartoon and writing a caption that describes the way they are feeling at that moment.

3. Directions to the class: "You will be using a cartoon from *Create with Garfield.* Your checksheet will give you the directions required so you can complete the cartoon with each member of your group writing one caption."

4. Describe roles for the group: keyboarder, reader, printer, encourager. Discuss what each will be doing and saying.

5. Assign groups and computers, and distribute software.

One printer for the class
One checksheet per group (see below)

Student Prerequisites:

Previous experience with *Create with Garfield*

Group Tasks:

1. Student groups go to computers where they work with *Create with Garfield* software.

2. Students assign roles to their members: keyboarder, reader, printer, encourager.

3. Follow the list of directions, checking off the steps as they are completed.

Closure:

1. Ask groups to report on the various feelings that were assigned to characters in the cartoon.

2. Discuss possible behaviors that might result if students started out feeling angry, sick, etc. as they were trying to work in their group.

3. Discuss how group members might work with others who are feeling differently than they are.

Teacher Notes:

1. For this activity the teacher will need to prepare a file for *Create with Garfield*. After booting up the software, follow the directions and make a cartoon with four characters. At the top type in the directions. For example:

Identify with one character. Pick a cloud and add a caption that describes your feelings right now.
© 1978, 1979, 1980 United Feature Syndicate, Inc.

GARFIELD Characters © 1978, 1979, 1980
United Feature Syndicate, Inc

2. Save this cartoon on data disks that will be given to each group.

Checksheet for Cartoon

1. Four group members are to sit at the computer.

2. Designate one person to be the keyboarder, one to be the reader, one to be the printer, one to encourage everyone.

3. Boot up *Create with Garfield.*

4. Press **any key**.

5. Press **C** to continue.

6. Go to **Data Disc**. Press **Return**.

7. Go to **Load**. Press **Return**.

8. Press **C**.

9. Type **1**. Press **Return**.

10. Type **Y.**

11. Go to **See the current cartoon**. All group members are to look closely. Decide which animal each person will identify with. Later you will pick a cloud and caption for this animal so note it's location and the size of the space around it.

12. Press **Return**.

13. Go to **Create Menu**.

14. Go to **Get Stick-ons**.

15. Go to **Write Captions**.

16. One member is to pick out a cloud to fit above the animal she is identifying with. Use the space bar to view the captions.

17. Press **Return**.

18. Type in a message to reveal how you feel today. Press **Return**.

19. Type **Y.**

20. Use the **M** key to lower and place caption.

21. Press **Return**.

22. Have the next person in the group repeat steps 16 - 21.

23. When all four people have finished their captions go to **Create Menu**.

24. Let the person designated as printer take over and go to **Cartoon Printer**.

25. Go to **Print Cartoon**.

26. Turn on printer.

27. Press **C.**

INFORMATION ABOUT GROUP MEMBERS

Using a data base, group members provide information about themselves to share with the group.

Name: Jennifer
Favorite Food: spaghetti
Pets: 2 cats
Favorite TV program: Nova
Angry when: too much work
Great at: calligraphy

Goals:

To increase student awareness of similarities and differences of group members
To encourage students to share personal information in a group

Grade Level: 4 - 8

Time Required: 50 minutes

Materials Needed:

One computer per group
One data base such as *AppleWorks* per group
One data disk per group

Introduction to the Lesson:

1. Discuss with students the categories on the data base: name, favorite food, favorite TV program, pets, I'm angry when, I'm good at.

2. Tell students this will be a way that they can get acquainted.

3. Emphasize that they are to give information to the keyboarder. While someone else is talking they are to pay attention to the information so they can learn about the speaker.

Group Tasks:

1. Groups get together and boot up data base with data disk formatted for group information.

2. The student whose first letter of their first name is closest to the end of the alphabet should be the keyboarder at each computer.

Student Prerequisites:

Previous experience using the software

3. Keyboarder is to input information about each group member.

Closure:

1. Each group member in turn states a similarity they observe in the data.

2. Each group member in turn states a difference they observe in the data.

Extension:

1. Print out the individual data for each member in the group. Assemble the printouts in a group work notebook.

2. Make data disk with information from all members in the class. Have available for perusal by any class member.

Teacher Notes:

1. The data disk should be formatted to include the following categories:

Name:
Favorite Food:
Favorite TV Program:
Pets I Have:
I'm Angry When:
I'm Good At:

MAKING A GROUP LIMERICK

Group members find each other by matching the limerick lines they have been given with the limerick lines of other students to make a complete limerick. Then, as a group, they make up a limerick on the computer.

A handsome young man from Spain
Went riding way up in a plane.
His hat flew off
He started to cough
And the skies began to rain.

Goals:

To build language skills
To work cooperatively on a group task
To enhance student appreciation of their own and each other's creative ideas

Grade Level: 5 - 8

Time Required: 50 minutes

Materials Needed:

Transparencies of limericks and overhead projector (optional)
A limerick for each group of five students (see below)
One computer per group

Introduction to the Lesson:

1. Read several limericks to the class to give them the idea of the rhythm in a limerick. Use the overhead projector and read them aloud. Point out examples of play with words.

A cheerful old bear at the Zoo
Could always find something to do.
When it bored him to go
On a walk to and fro,
He reversed it, and walked fro and to.

A flea and a fly in a flue
Were imprisoned, so what could they do?
Said the fly, "Let us flee."
Said the flea, "Let us fly."
So they flew through a flaw in the flue.

2. Directions to the students: "You will be given a line of a limerick. Your job will be to find the other people in the room who have lines to the same limerick. When you find them, sit down and read the limerick with the lines in the correct order."

One word processing program, such as *Magic Slate*, per group
One printer for the class
Directions for group limerick at each computer (see below)

Student Prerequisites:

Knowledge of word processing

3. Tell the class, "Later you will be making a group limerick. Directions for this job will be at your computer. As you do this, you will also be working on sharing ideas. Think about the first topic and the first line of your limerick. Then add something about it." Give some examples of what one could say to encourage someone in their group to contribute.

4. Randomly pass out lines of the limericks.

Group Tasks:

1. Students find all five members of their group by matching limerick lines. They sit together and put the limerick lines in order. They practice reading the limerick together.

2. With the total class assembled each group does a choral reading of their limerick. Students give examples of tricks of pronunciation and peculiarities in spelling. Have them give examples of word-scrambling and tongue-twisting.

3. Remind students that when they work to make their group limerick they are to have every person in the group give ideas to be incorporated into the limerick.

4. Students move with their group to the computer. Directions at each computer assist them in creating a group limerick.

5. When their limerick is complete, groups are to practice reading it together.

Closure:

1. With the whole class assembled, each group does a choral reading of the limerick they created.

2. Move around to each person in the class and have them report on someone in their group who contributed a good idea. For example, "Juan gave a good idea when he suggested this:_____".

3. What were some positive things you found out about the people you were working with?

4. What were some of the benefits of having a group create a limerick rather than writing one by yourself?

Extension:

1. Collect group limericks. Put them together in a book for class members to read.

Teacher Notes:

1. For each group of five students one limerick is used. Individual typed lines of the limerick are to be given out randomly. These may be mounted on 3 x 5 cards.

2. If the number of your students in a class is not a multiple of five, groups of four may be used by giving one person two consecutive lines of a limerick.

3. Suggestions for limericks to use may be found in *The Golden Treasury of Poetry* by Louis Untermeyer. (Golden Press, New York 1974.)

Instructions for Writing a Limerick

1. Boot up *Magic Slate*.

2. Decide on your first line from these suggestions or your own ideas:

There once was a teacher from _____.
_____.

I knew a young girl from _____
_____.

I wish that my _____had a _____.
_____.

3. Type in the rest of your lines. Use **control E** and **control D** to change words around and to try different words.

4. If someone is not giving their ideas ask them to suggest words.

5. When all five lines are complete hit **Return** twice.

6. Type in **By** and add all names of people in your group.

7. Practice reading your limerick together out loud.

8. Print out your limerick.

9. If you have time, add illustrations to your hard copy.

10. Your limerick will be included in a class book.

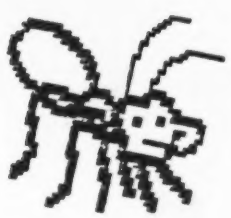
A cheerful old bear at the Zoo

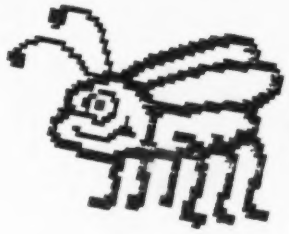
Could always find something to do.

When it bored him to go

On a walk to and fro,

He reversed it, and walked fro and to.





A flea and a fly in a flue

Were imprisoned, so what could they do?

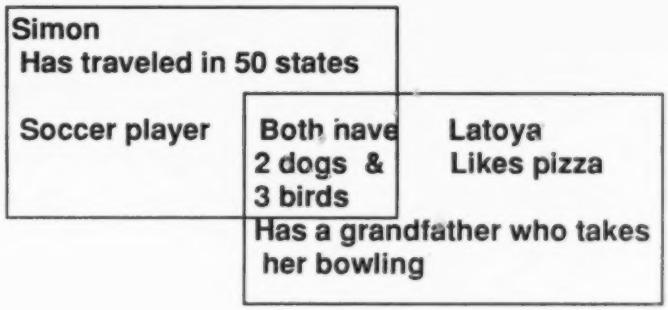
Said the fly, "Let us flee."

Said the flea, "Let us fly."

So they flew through a flaw in the flue.

FINDING COMMON INTERESTS

Students talk with a partner from their group to discover each other's areas of interest. They record these interest areas on a computer program, noting those which are held in common. This information is shared with the rest of their small group and with other class members.



Goals:

To encourage students to develop oral language skills
To encourage acceptance of diverse and mutual areas of interest

Grade Level: 3 - 9

Time Required: one hour

Materials Needed:

One or two computers per group *
One software that will draw a Venn Diagram and allow text to be entered in it, per group. Examples are *MousePaint* and *Koala Pad* for the Apple IIe, and *MacDraw, Business File*

Introduction to the Lesson:

1. Talk about areas of interest that people have, such as piano playing, baseball card collecting, and eating pizza.

2. Give examples of possible responses for students when their partner's area of interest is not important or of interest to them. We often miss out on relationships when we don't value differences.

3. Explain that they will break up their small group into two's so students can find their partner's areas of interest. Each person is to practice asking questions of their partner to gain information and show caring and interest in him or her; they are also to share information with their partners and, later, with group members.

4. Each partner in turn is to explore the areas of interest of the other. Each student's objective is to discover two specific areas of interest about the partner.

5. Next partners find two common areas of interest.

Vision, and *Hypercard* for the MacIntosh.
Summary Form (see below)

Student Prerequisites:

Students have been assigned to a small group of four members whom they will be working with on an ongoing basis.
Knowledge of the software program.

* If everyone is to do this activity at the same time it would be advantageous to have one computer for every two students. However, it can be done with fewer computers by taking turns.

6. Demonstrate the following, using the software:

In the top rectangle type one partner's name and the two areas of interest for that person.

In the bottom rectangle type the other partner's name and that person's two areas of interest.

In the overlapping rectangle type the two common areas of interest.

Save the file using partners' names for the file name.

6. When the above is completed partners get together with their other two group members. Each of the four is to describe the things their partner is interested in, as well as the common interests of partners. As they describe the partners' common interests, the group of four looks for any common interests among the four members.

Group Tasks:

1. Groups convene and divide their group of four into two sets of two.

2. Groups of two get together for discussion of areas of interest. Then these groups record on the computer their individual and common areas of interest.

3. Groups of four reconvene to report on what they found out about each other. Students are to share their partner's information with the group of four. These groups look for common interests among the four members.

Closure:

1. With the whole class assembled, students report on common interests with the partners or groups of four.

2. Students state interests they had not known about their partners.

Extension:

1. Print files of partners' areas of interest and distribute copies to all class members with copy of Summary Form.

2. Have students create a collage using pictures cut from magazines and their own drawings to depict either the common interests of partners or their own specific interests.

3. Display hard copies of files and collages for the entire class on the classroom bulletin board.

SUMMARY FOR COMMON INTERESTS

Student Names :

Areas of Interest:

Section III
Group Problem Solving

Activities for students to think together and develop skills such as listening to others and asking questions. Students focus on a particular problem and participate in a successful solution.

BAGELS

Students, with the fewest possible turns, identify a number using the clues provided.

Prediction	Response		
643	Pico		
938	Pico		
357	Fermi	Pico	
372	Fermi	Fermi	
371	Fermi	Fermi	Fermi

Goals:

To help students analyze the information the clues give them
To help students communicate their understanding to their peers
To train students to work together to solve a problem

Grade Level: 3 - 7

Time Required: 30 minutes

Materials Needed:

One copy of *Bagels* software, per group
One computer per group
One worksheet per group (see below)

Introduction to the Lesson:

1. Tell students they are to identify a three digit number with three different digits. The rules for prediction are as follows:

One person thinks of a number.

When the number predicted is not correct there will be these clues:

BAGELS - if no digit is correct
PICO - if one digit is correct but in the wrong place
FERMI - if one digit is correct and in the correct place.

2. Students practice identifying a few numbers. Record how many turns it takes to successfully predict the number. Have students give a reason for every prediction they make.

3. Students work in a small group and use the worksheet to record the numbers that are predicted and the number of turns it takes to determine each number.

4. Give a reason why, in light of the clues, a prediction would be good, or why a suggested number needs to be

changed. Students give examples of reasons that result in meaningful predictions.

5. Grades will be the same for everyone in the group, and will be based on the following:

One point for each number identified in 6 or more turns.
Two points for each number identified in 4 or 5 turns.
Three points for each number identified in 2 or 3 turns.
Four points for each number identified in the first turn.

Total points:

9 - 10 points = A
7 - 8 points = B
4 - 6 points = C
3 - 2 points = D

A teacher's initial is required to earn points so everyone in the group raises their hand when a number is identified. The teacher will then initial the worksheet.

6. Divide students into groups, having those with an "a" in their first name sit at one computer, those with a "b" in their first name sit at one computer, those with a "c" in their first name sit at another computer, etc. Move students if necessary to make equal groups.

Group Tasks:

1. Students boot up *Bagels* and work at identifying numbers.

2. Group members who are thinking of numbers to predict, explain why a particular number would be good, or why it would be better not to waste a turn on a suggested number.

3. Worksheets are filled in and initialed when a number is identified.

4. Points are totaled.

Closure:

1. Discuss strategies which made it easy to identify the number.
2. Students should say thank you to other group members who explained their thinking in a helpful way. For example: _____, thank you for explaining that 569 would be a good prediction because_____.

3. Grades are given to group members.

Extension:

1. Use *Creative Play* disk from the Lawrence Hall of Science. The program *Function Machine* would work with this same format.

2. Work with 4 or 5 digit numbers for a challenge. If 3 digit numbers are difficult, try 2 digit numbers.

Student Worksheet for Bagels

Number Identified _____ **Points** _____

Teacher Initial _____

Number Identified _____ **Points** _____

Teacher Initial _____

Number Identified _____ **Points** _____

Teacher Initial _____

Number Identified _____ **Points** _____

Teacher Initial _____

Number Identified _____ **Points** _____

Teacher Initial _____

Number Identified _____ **Points**_____

Teacher Initial _____

Number Identified _____ **Points** _____

Teacher Initial _____

Total Points_____

EDUCATION

Students work in small groups using logic to sort out teachers, classes they teach, and rewards they give, from the information provided to each member of the group.

Ms. Reed		Mr. Pierre
Math	or	Reading
Gold Stars		Stickers

Goals:

To develop students logical thinking skills
To provide students with an experience in resource interdependence

Grade Level: 4 - 6

Time Required: 30 minutes

Materials Needed:

One computer per group
One printer per class
One spreadsheet program such as *AppleWorks*, per group
Individual clues for each group member (see below)

Introduction to the Lesson:

1. Ask students to name some reading teachers and some math teachers they've had. Ask students to recall some of the ways these teachers rewarded their students for doing a good job.

2. Explain to the class that their assignment is to match the teacher of reading, writing, or math, with the reward each gives their students. They will be able to do this using the clues they are given.

3. Each group member will be given a card with information which must be read to the other group members. The one who has the card must read it aloud. Together the group will have the information they need. It will be necessary to use the clues to decide who teaches each class, and what reward will be given.

4. Review the spreadsheet program, typing in the entries for each and also deleting entries.

5. When a group member knows that an item belongs to a particular teacher, he/she explains this to the group so each one understands why it belongs to that teacher.

Student Prerequisites:

Knowledge of how to insert information in a spreadsheet.

6. Every group member should listen carefully so that they can understand the speaker's logic. Discuss what might help them listen better, such as:

Do not interrupt the speaker,
Think about what the speaker is saying,
Evaluate what is said with the attitude that the speaker may be right.

7. The assignment is complete when everyone in the group can explain why each class and reward is listed under a particular teacher. All members are to sign the hard copy when they know and understand the matching.

8. List the criteria for the grade on this assignment.

A if all teachers, classes, and rewards are correctly matched.
B if there are one or two errors.
C if there are four or five errors.
F if there are more than five errors.

Everyone in the group will receive the same grade.

9. Direct groups to computer areas and give out clues to each member in the group.

Group Tasks:

1. Group members share their information with their group.

2. Groups set up the spreadsheet program.

3. Groups discuss and insert information under each column to match the teacher with class and reward.

4. The completed spreadsheet is printed.

5. All members sign at the bottom to indicate they know and understand the information.

Closure:

1. Teacher-directed discussion where group members report on class and reward they have matched with each teacher and explain why they included the items for each teacher.

2. Each student is to comment on only one of the following:

Something I did to really listen.
Something I understood and explained to my group.
Something I did well in this lesson.
Something I need to work on the next time I'm in my group.

3. Check answers and give group grades according to criteria set up in lesson introduction.

Extension:

1. Provide additional problems for groups to work on the spreadsheet. Use *Integrating the Core Curriculum Through Cooperative Learning* by Patricia Winget (Resources in Special Education, 650 University Ave., Sacramento, CA 95825, 1987) with the lesson "Jobs, Jobs,

EDUCATION

CLUE CARD **These clues will help solve your problem. Share them with your group by reading them out loud.** **Ms. Reed, Ms. Butler, and Mr. Pierre—each a specialist in either reading, writing, or math (though not necessarily in that order)--are the teachers and they reward their students for good work.**	**CLUE CARD** **These clues will help solve your problem. Share them with your group by reading them out loud.** **Ms. Butler, who doesn't teach the math class, gives her best students stickers.**
CLUE CARD **These clues will help solve your problem. Share them with your group by reading them out loud.** **Mr. Pierre and the teacher who gives her students gold stars for excellence, work in adjacent classrooms.**	**CLUE CARD** **These clues will help solve your problem. Share them with your group by reading them out loud.** **The science teacher rewards the neatest, most legible, work with A's.**

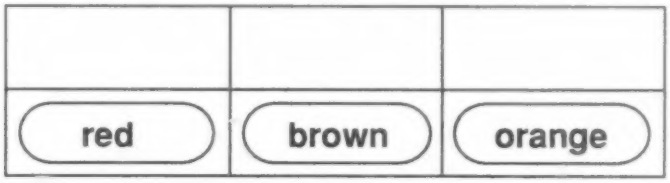
Answers to Education

Ms. Reed	Ms. Butler	Mr. Pierre
Math	Reading	Science
Gold Stars	Stickers	A's

LOGICAL THINKING

Students work in groups to solve a puzzle by logical reasoning.

back



front

The orange is in front of the green.
The blue is between the green and the yellow.
Orange is adjacent to the brown and to the green.
Red has both the brown and the orange to it's right.

Goals:

To encourage students to develop logical thinking skills
To enable students to discuss possible solutions to a problem

Grade Level: 4 - 8

Time Required: 15 minutes

Materials Needed:

One graphics program, such as *MousePaint*, per group
One computer, with mouse, per group
One prepared file, as illustrated above (but without

Introduction to the Lesson:

1. Use eight blocks which are in a straight line. You are to make four stacks with two blocks in each stack on the same line. Blocks may be moved on the line as follows:

A. You may move one block jumping over two blocks in two ways.

1. You may jump over two side by side blocks.

2. You may jump over one stack of two blocks.

B. You may not have more than two blocks in a stack at any one time.

As possible solutions are tried, emphasize the importance of taking turns and listening to the explanation of why the blocks should be moved that way.

2. Tell students that they will work in their small groups to solve a puzzle. They will need to get the file called "logic" and this will have the directions on it.

3. Explain that often when thinking about this kind of problem they might get a "flash of insight" and understand how it works. If this happens relate this understanding to the group so each one in the group can see clearly how the blocks are moved, and why it should be that way.

Group Tasks:

1. Groups boot up *MousePaint* and the file Logic.

2. Groups work on puzzle, describing and explaining their ideas to other group members.

Closure:

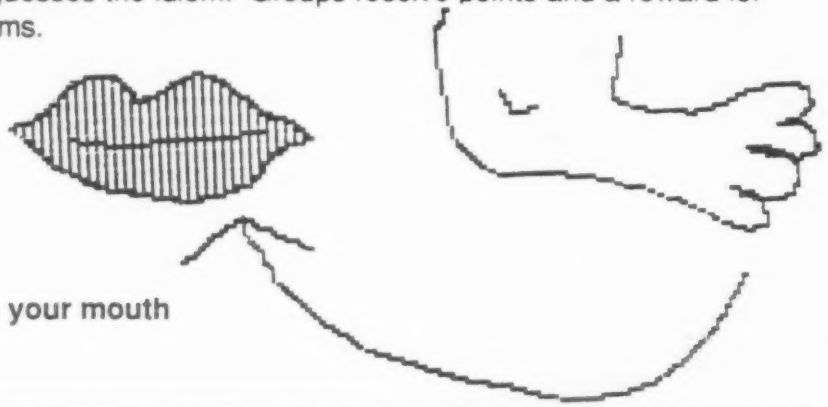
1. Groups report on their group solution, and on helpful explanations that group members made.

2. If your group was to do another activity like this, what would you do differently?

3. Can you think of some examples of activities, that have some directions, that you work on outside of school?

DRAWING IDIOMS

One student from each group makes a drawing to illustrate an idiom on the computer. The rest of the group guesses the idiom. Groups receive points and a reward for correctly guessing idioms.



putting your foot in your mouth

Goals:

To demonstrate to students the power of non-verbal communication
To enable students to explore language
To provide students the opportunity to work together on a cooperative game

Grade Level: 4 - 8

Time Required: 1 hour

Materials Needed:

One computer per group
One graphics drawing program, such as *MousePaint* , per group
Cards with idioms (see below)
Cards numbered 1 - 4 for each group

Introduction to the Lesson:

1. Drawings of idioms are shown on an overhead and students read the idiom and talk about it's meaning.

2. Teacher explains that for this day's activity one person from each group will be an artist for each round to illustrate an idiom on *MousePaint*. .

3. The rest of the group will try to guess the idiom. The artist is only allowed to answer yes or no in response to the guesses. The artist is not allowed to use any letters or numbers in the drawing.

4. Explain that since all groups are guessing the same idiom group members may want to keep their voices low so only their own group can hear their responses.

5. Observers will record points for correct guesses for each idiom on a worksheet.

6. For each correct guess, a group will receive one point. For a total score of ten or more, each person in the group gets the agreed upon reward.

Transparencies and overhead projector (see below)
Reward for reaching stated criteria

Student Prerequisites:

Familiarity with graphics program
Assignment to a small group of four who will be working together on an ongoing basis

Transparencies from the book *From the Horse's Mouth*, by Ann and Dan Nevins 1977. Used by permission of the publisher, Prentice-Hall, Inc., Englewood Cliffs, N.J.

Also, Dormac Inc. , P.O. Box 270459, San Diego, CA 92128, has a good idiom series including *Raining Cats and Dogs* and *Hold Your Horses*.

7. Teacher selects observers and gives them observation forms.

8. Groups assemble at teacher-assigned computer areas.

Group Tasks:

1. Students in their groups draw a card to determine the order for illustrating.

2. Teacher gives a card with the first idiom to the first artist to illustrate.

3. Artist begins drawing on *Mouse Paint*. Group members guess what the idiom is.

4. Observers report what groups successfully guessed the idiom for that round.

5. Points are given for those groups who correctly guessed the idiom.

6. In like manner the artist for the next round receives an idiom card and illustrates using *MousePaint*.

Closure:

1. Ask a group what helped them guess the idioms. Ask the artists how they decided what to draw.

2. Ask groups what happened when they spoke loudly when guessing and the next group heard them.

3. Have students give examples of other idioms and explain what they mean.

4. Have students give examples of merchants who have store names with double meanings.

5. Tally points and give out rewards for those groups that received ten or more points.

Extension:

1. Students make a list of all the idioms they can find.

2. Illustrations of idioms from *MousePaint* are printed out and put up on a bulletin board. The idioms are up also, but concealed under a paper flap. Then students can guess which idiom is illustrated and check to see if they are right.

Teacher Notes:

1. Idioms to be drawn are put on cards to be given to artists. For each round there should be one idiom card for each group.

Suggested idioms:

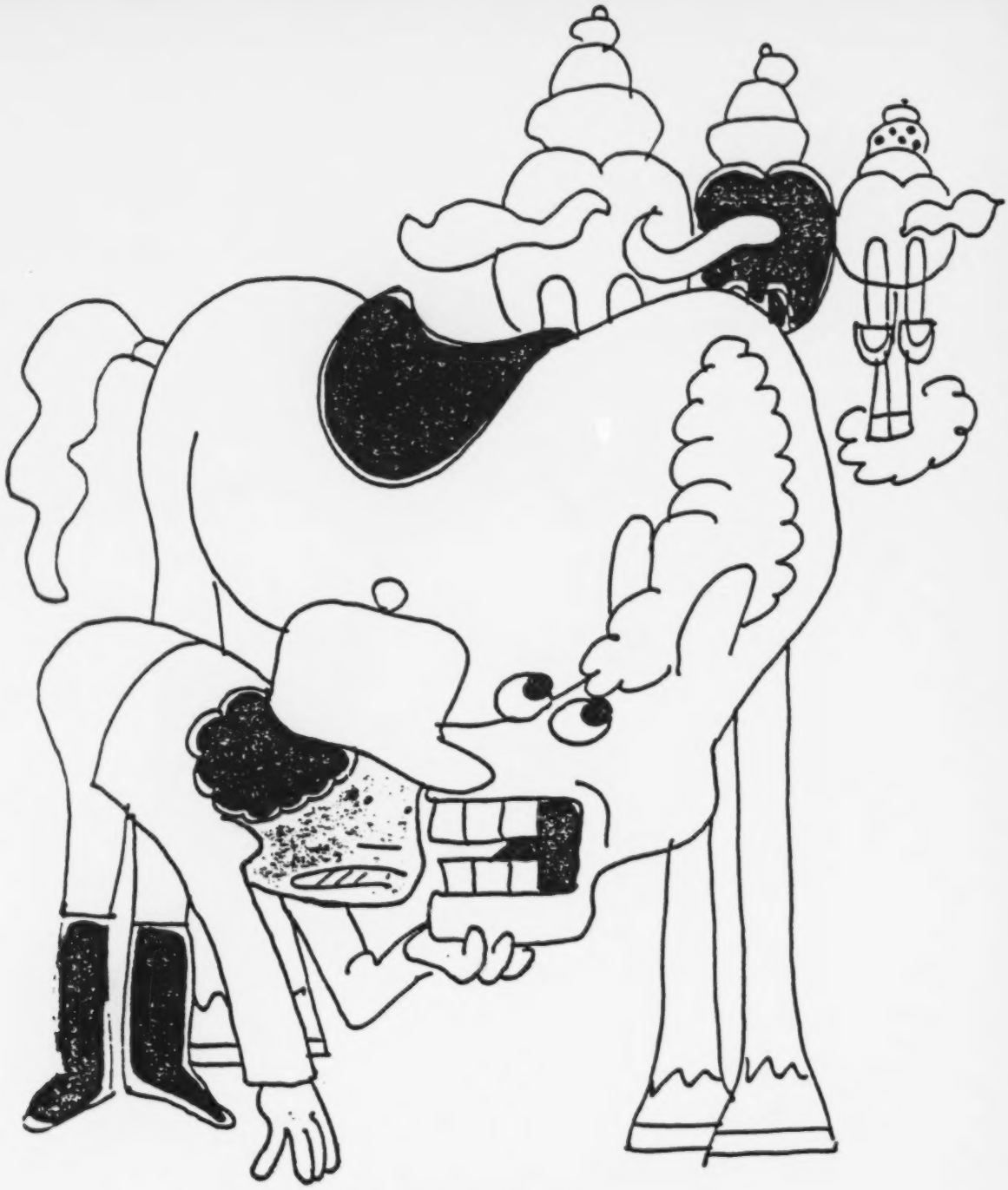
Getting out on the wrong side of bed
In one ear and out the other
Save it for a rainy day
Don't spill the beans
Not the only fish in the sea
Strike while the iron is hot
Raining cats and dogs
See eye to eye
Put your foot in your mouth
Once in a blue moon
You're barking up the wrong tree
A frog in his throat

2. If observers want to participate in the group work, rotate this role each round.

Observation Sheet for Idioms

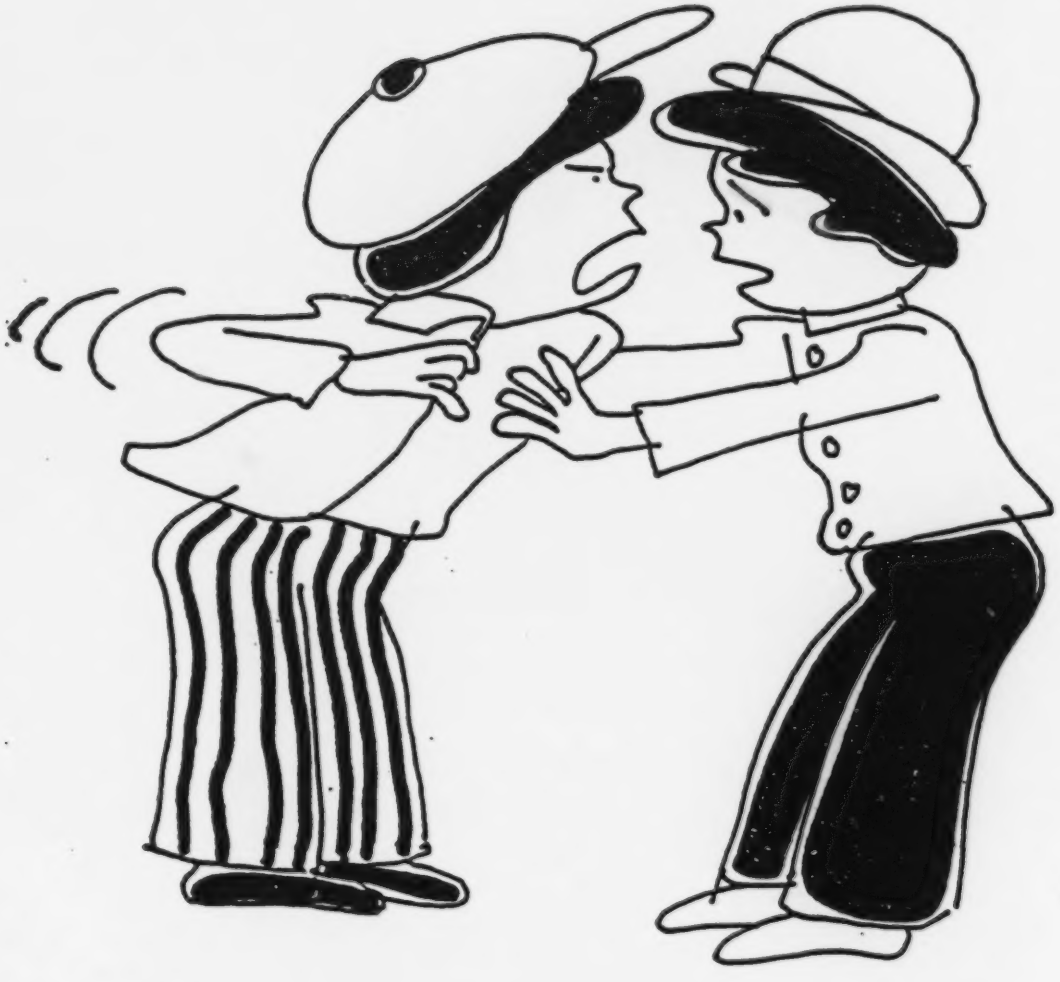
Idiom	Points
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

Total _____



From the Horse's Mouth

Firsthand information. This is a horse-racing expression. Scientists tell us that we can tell a horse's age by the teeth of the lower jaw. No matter what an owner says a horse's age is (and some will lie about it) an experienced person could tell its age "straight from the horse's mouth."

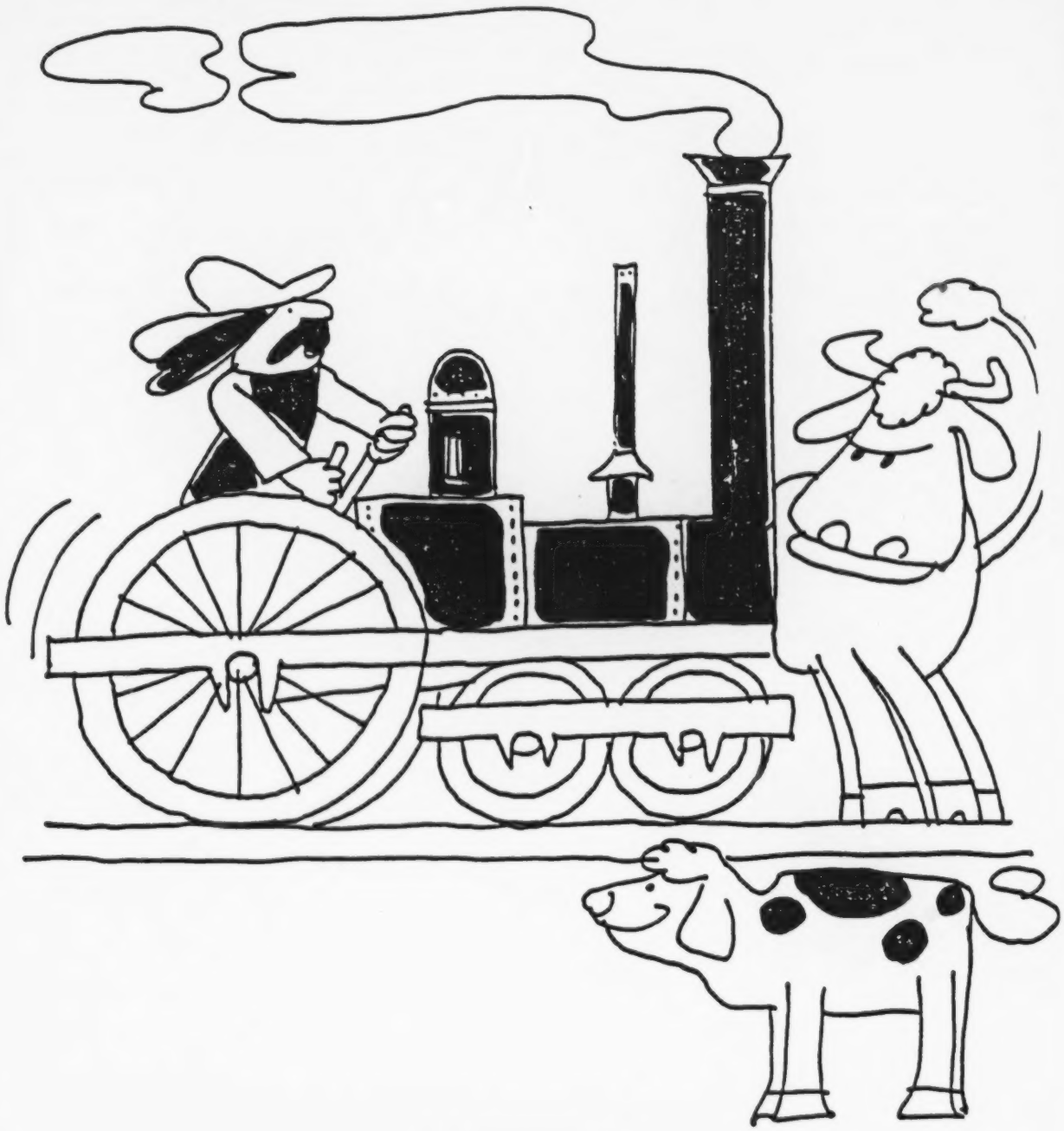


Keep Your Shirt On

Keep calm. About a hundred years ago if the conversation was getting heated, you may have told your pal to "keep your shirt on." In those days shirts shrunk after a good washing. If you had to fight, you took your shirt off to enable yourself to get a good swing at your opponent.

Bury the Hatchet

Make peace. We tend to think of it as an early Indian ritual of burying the tomahawk of a warrior after making peace. There really does not seem to have been such a ritual among the North American Indians. The phrase probably goes back to England of the 1300's, when they used the phrase "hang up the hatchet."



Big Wheel

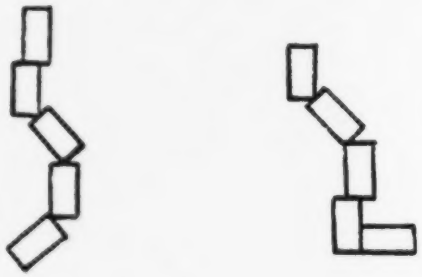
An important person in any organization. We're not sure if this phrase originated with railroad folkore, but the big rear wheels of the early engines were very important to the movement of a train. Because they had a wider diameter and covered more distance in one turn than the smaller front wheels, they acted as "pushers."

All Ears

Listening intently. If you've ever seen a dog perk up its ears, you know it's trying to catch a faint sound. People do the same thing.

LISTEN AND DRAW

One person in each group is selected as an artist and draws what the rest of the group describes. This is repeated with the artist asking questions as the group is describing a second drawing.



Goals:

To have students experience one way and two way communication
To have students evaluate the effects of one way and two way communication

Grade Level: 5 - 8

Time Required: 50 minutes

Materials Needed:

2 drawings per group (distributed at the appropriate time)(see below)
1 computer per group*
1 drawing program, such as *MousePaint* , per group

Introduction to the Lesson:

1. Ask students what they are expected to do when the teacher gives directions. Develop ideas from students on what to do to listen and what to do to follow directions.

2. Tell students that today's lesson will be about sending and receiving a message. The activity starts with one person in the group drawing on *MousePaint.*

The group is to select an artist. There will be two rounds.

The artist boots up *MousePaint* and faces the computer without ever turning around.

The group is given Figure I and gives directions to describe it to the artist. They are not allowed to give any feedback; they must only describe. (For example: They cannot say, "You just about have it; that's right".)

The artist follows the directions as given. The artist is not allowed to talk at all.

After the group has finished the description, the artist is to estimate what parts of the drawing are correct. Then

Student Prerequisites:

Knowledge of how to use *MousePaint*

*Students may work in pairs if enough computers are available. Otherwise students may work in groups of three or four.

the artist and the rest of the group compare the drawing the group has with the drawing of the artist.

3. Assign groups and computer areas.

Group Tasks:

1. Students designate the artist, who sits at the computer with *MousePaint.*

2. The rest of the group receives their copy of Figure I to describe for round one. They give directions to the artist.

3. The artist listens and draws what is described.

4. When the drawing is completed the artist estimates what is correct and compares it to the original drawing.

5. The teacher announces round two and the artist is seated at the computer with *MousePaint.*

6. The teacher gives these directions:

"The group will give the artist directions for a second drawing. This time the artist is allowed to ask questions and to have directions repeated."

7. The group receives Figure II to describe.

8. The artist draws as the group describes what to draw.

9. When finished, the artist estimates the amount of the drawing that is correct. The drawing is compared to the original.

Closure:

1. With the whole group together the artists are asked:

Compare the experience of drawing the first time with the experience of drawing the second time?

2. The non-artists are asked:

What did you notice that was different about the first round and the second round?

What effect did asking questions have on the artist?

3. All are asked:

What situations are you in where there is one way communication (only listening and no questions)?

Is there any way to make them into two way communication situations?

What will you need in your group for two way communication?

What does listening and asking questions have to do with sending and receiving messages?

Extension:

1. Have each group make one drawing and describe it to the teacher who listens and draws.

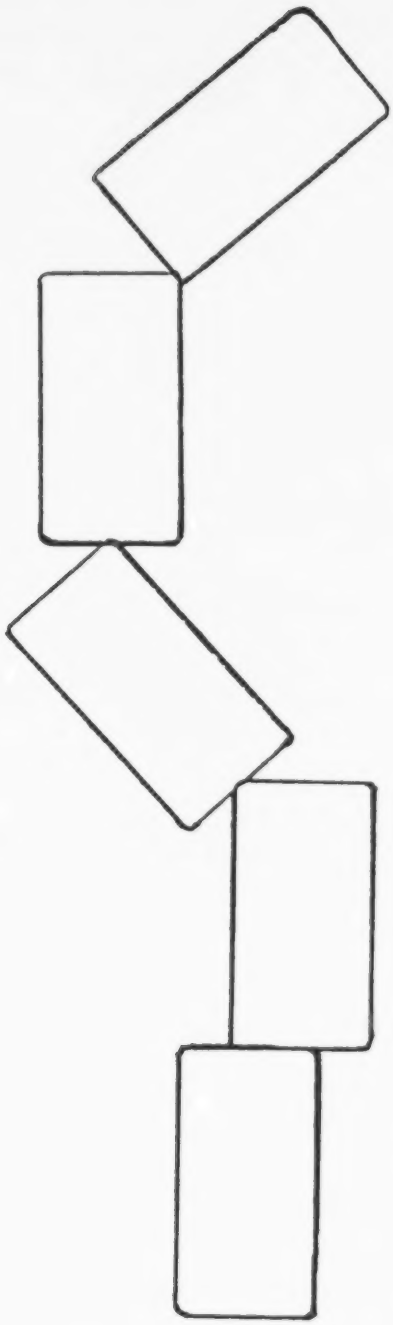


FIGURE I.

Instructions: Study the figure above. Instruct the artist to draw the figure. Start at the top and describe each rectangle. No questions are allowed and no repeating.

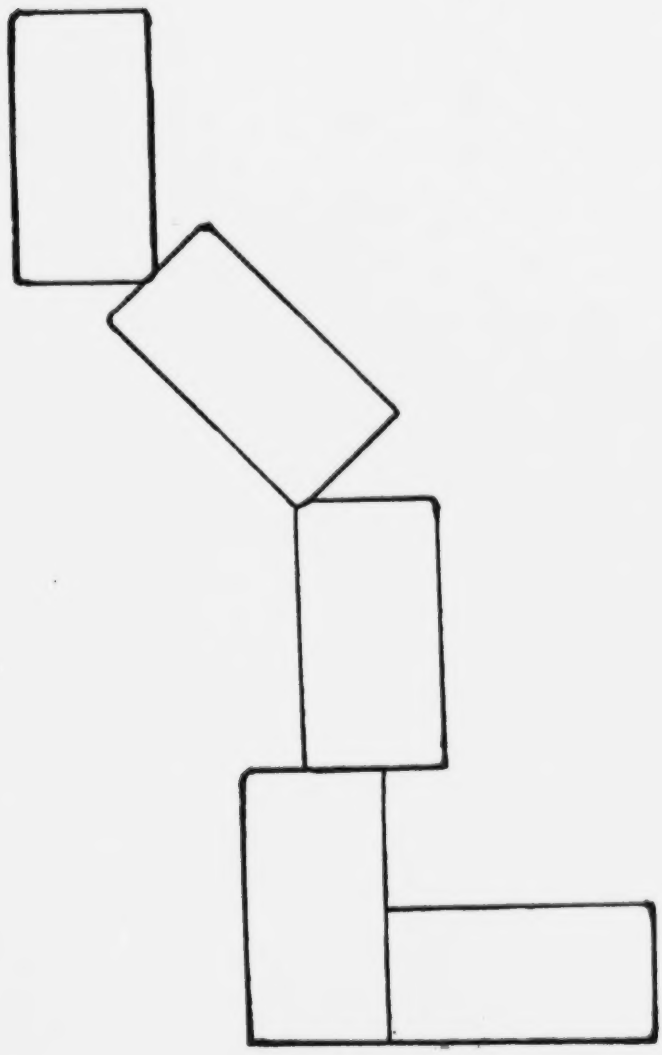


FIGURE II.

Instructions: Study the figure above. Instruct the artist to draw the figure. Start with the top rectangle. Answer all questions and repeat if necessary.

ITALIAN LUNCH

Students work in small groups using logic to construct Italian lunch menus from the information provided to each member of the group.

Menu for Monday

Green Salad	or	Onion Soup
Minestrone Soup		Pasta
Pasta		Antipasto

Goals:

To develop logical thinking skills
To give students the experience of resource interdependence
To allow students to give positive feedback to their classmates

Grade Level: 6 - 9

Time Required: 50 minutes

Materials Needed:

Individual clues for each group member (see below)
One computer per group
One spreadsheet program, such as *AppleWorks*, per group
One printer per class

Introduction to the Lesson:

1. Recall with the class what the menu in the school cafeteria was one day last week or what they had for dinner on Saturday night.

2. Explain to the class that their job in their small group will be to reconstruct five Italian lunch menus from the information they are given.

3. Explain that each group member will be given some information which they are to share with the other group members. Together they will have the information needed but it will be necessary to use the clues and to decide what must have been eaten on each day.

4. Review the spreadsheet program. Type in the entries for each day, deleting and using ⌘ B to erase.

5. If it is clear to a group member that an item belongs on the menu for a particular day, that person should explain this to the group so they will all understand why it belongs on that day.

Student Prerequisites:

Knowledge of how to insert information in a spreadsheet.

6. On the other hand it will be everyone's job to listen carefully so that they can understand the speaker's logic. Discuss what might help them listen, such as:

   Not interrupting the speaker,
   Thinking about what the speaker is saying,
   Having the attitude that the speaker may be right.

7. The assignment is completed when everyone in the group can explain what the menu was for each day and why each item is listed under a particular day. All members are to sign the hard copy when they know and understand the menus for the week.

8. Direct groups to computer areas and give out clues to each member in the group.

Group Tasks:

1. Group members read their information to their group.

2. Groups set up the spreadsheet program.

3. Groups discuss and insert information under each column to complete the lunch menus for the week.

4. The completed spreadsheet is printed.

5. All members sign at the bottom to indicate they know and understand the information.

6. Group grades will be as follows:

   A if all five menus are correct.
   B if four menus are correct.
   C if three menus are correct.
   F if no more than two are correct.

Everyone in the group will receive the same grade.

Closure:

1. The class will report on each day's menu and explain why they included the items under each day's menu.

2. Group members will report on who persuaded them to put an item under a particular day. They may use the format:

_____, you helped me understand that
name
_____ should be on
menu item
_____ when you said _____.
day of week tell what was said

3. Check answers and give group grades according to criteria set up in lesson introduction.

Extension:

1. Provide additional logic problems for groups to work out on the spreadsheet.

Teacher Notes:

1. If this is a beginning experience with AppleWorks set up the files with M - F and load the program so students can type in entries as soon as they sit down.

Italian Lunch

CLUE CARD	CLUE CARD
These clues will help solve your problem. Share them with your group by reading them out loud. "I can't remember what I had for lunch last week. It must have been Italian food— that's what I eat every weekday. I know I had pasta on Monday and antipasto on Wednesday— plus other things of course.	These clues will help solve your problem. Share them with your group by reading them out loud. I always order three dishes. So it doesn't get boring, I don't order exactly the same three dishes on successive days.
CLUE CARD	**CLUE CARD**
These clues will help solve your problem. Share them with your group by reading them out loud. Pinelli's menu has only five dishes on it so I have to repeat individual items. For example I had green salad Wednesday and Thursday.	These clues will help solve your problem. Share them with your group by reading them out loud. But I never order the same dish three days running. That's why I had onion soup today instead of minestrone soup, even though I like minestrone soup so much that I have it at least every other weekday. Some day I'll try both soups at the same meal.

Answers to Italian Lunch

Monday:	Minestrone Soup	Green Salad	Pasta
Tuesday:	Onion Soup	Antipasto	Pasta
Wednesday:	Minestrone Soup	Green Salad	Antipasto
Thursday:	Minestrone Soup	Green Salad	Pasta
Friday:	Onion Soup	Antipasto	Pasta

WORD PUZZLES

Students work in small groups adding three identical letters to each of two words. This completes the pair of words that are in the same category.

_ _ _ M PER _ _ _

Add **SIA** to both:

SIAM PERSIA

Goals:

To develop logical reasoning skills
To experience the creative power of brainstorming

Grade Level: 6 - 9

Time Required: 20 minutes

Materials Needed:

One computer per group
One Word Puzzles program on an authoring disk, such as *EZ Pilot II*, per group (see below)
Blackboard and chalk or overhead projector
Timer
Observation sheet, one per group (see below)

Introduction to the Lesson:

1. On blackboard write _ _ _ M and PER _ _ _. Tell students these are the names of two countries. Have them guess the three letters that are missing in each word. Tell them the same three letters are missing in each word, and the letters will be used in the same order to complete the words.

2. For the next example write DUB _ _ _ and WEL _ _ _ GTON. Tell students that these two words are both in the same category (major cities). Have them guess the three missing letters to complete the words.

3. Describe the small group assignment:

The words in each pair are members of the same category, and both are missing an identical three-letter sequence. They are to fill in the blanks in each pair with the same three letters in the same order to get the words.

4. Explain that this is a job for everyone in the group. If there are loafers in the group the job for the rest of the group is to get the loafers to work. If one person is doing

Cards numbered 1 - 4 for each group
One student worksheet per group (see below)

all the work the job for the rest of the group is to work out a plan so that everyone has a chance to give their ideas.

5. Discuss ways to get everyone to contribute answers.

Brainstorming Procedures:

Record ideas.
Accept all ideas without comment.
Build on ideas which are suggested.
Evaluate ideas later.

Brainstorm comments to encourage others, such as:

What letters shall we try to add?
What do you think one of the words could be?

Have students look at the list and pick out comments they would feel comfortable using to encourage others.

Discuss praising words which are given after a response. Brainstorm a list, such as:

Good job, Good try, That helps me get an idea...

Again have students look at the list and pick out words they would feel comfortable using to praise others.

6. Tell students they will have fifteen minutes to work on the matching word pairs in the software program.

7. Tell students that when their group has assembled at the computer they are to pick a card. The number on the card will tell them what particular role they will have for the lesson:

1 will be the observer and write down all encouraging comments that group members say.
2 will be the keyboarder and type what the group says.
3 will be the facilitator and tell the keyboarder what the group has decided.
4 will be the task reminder who will get the group started and keep them focused on the task.
(Put this information on an overhead or the board for reference.)

After seven minutes the timer is to go off and everyone is to pick a card and get a new job.

8. Each group will begin by booting up the *EZ Pilot* disk and typing **1** to get the words. Each group's assignment is to correctly complete six pairs of words.

Group Tasks:

1. Pick cards to establish roles.

2. Boot up *EZ Pilot* and type **1**.

3. Discuss words and insert missing letters.

4. When half the time is up change roles by again picking a card and continue work on words.

Closure:

1. Each group reports on the number of words they had correct and other groups help them with the word pairs they were stuck on.

2. Student observers report to groups. Group members comment on the encouraging and praising words that were said to them by members of their group.

3. Students give examples of situations where brainstorming might be helpful to them.

Teacher Notes:

1. On the *EZ Pilot* program adding more "T:" will give more blank space and give a less cluttered look to the program. Typing **stop** will quit this program.

2. More matching pairs can be added to this activity. Suggested categories: numbers, metals, state capitals, planets, teams.

Word Puzzles

_ _ _ MOND, OBSI _ _ _ N

SUPE _ _ _ R, ONTA _ _ _

_ _ _ CH, SNAP _ _ _

_ _ _ ES, AQU _ _ _ US

OR _ _ _ E, T _ _ _ ERINE

AL _ _ _ A, NEBR _ _ _ A

Answers to Word Puzzles

DIAMOND, OBSIDIAN (gemstones)

SUPERIOR, ONTARIO (Great Lakes)

PERCH, SNAPPER (fishes)

ARIES, AQUARIUS (zodiac signs)

ORANGE, TANGERINE (fruits)

ALASKA, NEBRASKA (states)

OBSERVATION SHEET

Observer 1 _____

Observer 2 _____

Observer 1 is to fill in each member's name by a number. Under each person's name write in praising and encouraging words you hear.

Observer 2 may continue to write on this paper.
Add Observer 1's name as the fourth member of the group.

Group Members' Names:

1._____

Praising and encouraging words used:

_____

2._____

Praising and encouraging word used:

_____

3._____

Praising and encouraging words used:

_____

4._____

Praising and encouraging words used:

_____

Worksheet for Word Puzzles

Fill in the two words:

1. _____ _____ _____ letters added

2. _____ _____ _____ letters added

3. _____ _____ _____ letters added

4. _____ _____ _____ letters added

5. _____ _____ _____ letters added

6. _____ _____ _____ letters added

Directions for Word Puzzles

Type in the following program on *Easy Pilot II*.

```
1  T:You will see two words
2  T:that belong to the same
3  T: category.
4  T:
5  T:Guess the letters that
6  T:are missing in each word.
7  T:
8  T:
9  T:The same three letters are
10 T:missing in each word.
11 T:
12 T:The letters will be used in
13 T:the same order to complete
14 T:the words.
15 T:After you type the missing
16 T:letters, press return.
17 T:
18 T:When you are ready to start
19 T:press R and RETURN.
20 T:
21 A:
22 M :R,r
23 U:*W
24 *W:
25 GC:3
26 T:Word Pairs
27 T:
28 T:1-___MOND,  OBSI___N
29 T:
30 T :2-SUPE___R,  ONTA___
31 T:
32 T:3-___CH,  SNAP___
33 T:
34 T:4-___ES,  AQU___US
35 T:
36 T:5-OR___E,  T___ERINE
37 T:
38T:6-AL___A, NEBR___A
39 T:
```

```
40 T:
41 T:
42 T:Type a number to select a
43 T:word pair.  Then, press RETURN/
44  A:
45 J(Z=1):*A
46 J(Z=2):*B
47 J(Z=3):*C
48 J(Z=4):*D
49 J(Z=5):*E
50 J(Z=6):*F
51 M :1,2,3,4,5,6
52 TN:NO. Type a number 6
53 TN:or less.
54 WN:2
55 U:*A
56 U:*B
57 U:*C
58 U:*D
59 U:*E
60 U:*F
61 *A:
62 T:
63 T:
64 T:
65 T:
66 T:
67 T:_ _ _MOND,  OBSI_ _ _N
68 T:
69 T:
70 T:What three letters do you
71 T:want to add?
72 A:
73 M:dia,DIA
74 T:
75 T:
76 TY:Yes! These are both gemstones.
77 TY:DIAMOND,   OBSIDIAN
78 T:
79 TN:No. You'll have to try again.
80 T:
81 J:*W
82 *B:
83 T:
```

```
84 T:
85 T:
86 T:
87 T:
88 T:SUPE_ _ _ R,  ONTA_ _ _
89 T:
90 T:
91 T:What three letters do you
92 T:want to add?
93 A:
94 M:rio,RIO
95 T:
96 T:
97 TY:Yes!  These are both lakes.
98 TY:SUPERIOR,  ONTARIO
99 T:
100 TN:No.  You'll have to try again.
101 T:
102 J:*W
103 *C:
104 T:
105 T:
106 T:
107 T:
108 T:
109 T:_ _ _CH,  SNAP_ _ _
110 T:
111 T:
112 T:What three letters do you
113 T:want to add?
114 A:
115 M:per,PER
116 T:
117 T:
118 TY:Yes!  These are both fish.
119 TY:PERCH,  SNAPPER
120 T:
121 TN:No.  You'll have to try again.
122 T:
123 J:*W
124 *D:
125 T:
126 T:
127 T:
```

128 T:
129 T:
130 T:_ _ _ES, AQU_ _ _US
131 T:
132 T:
133 T:What three letters do you
134 T:want to add?
135 A:
136 M:ari,ARI
137 T:
138 T:
139 TY:Yes! These are both zodiac signs.
140 TY:ARIES, AQUARIUS
141 T:
142 TN:No. You'll have to try again.
143 T:
144 J:*W
145 *E:
146 T:
147 T:
148 T:
149 T:
150 T:
151 T:OR_ _ _E, T_ _ _ERINE
152 T:
153 T:
154 T:What three letters do you
155 T:want to add?
156 A:
157 M:ang,ANG
158 T:
159 T:
160 TY:Yes! These are both fruits.
161 TY:ORANGE, TANGERINE
162 T:
163 TN:No. You'll have to try again.
164 T:
165 J:*W
166 *F:
167 T:
168 T:
169 T:
170 T:
171 T:
172 T:AL_ _ _A, NEBR_ _ _A

173 T:
174 T:
175 T:What three letters do you
176 T:want to add?
177 A:
178 M:ask,ASK
179 T:
180 T:
181 TY:Yes! These are both states.
182 TY:ALASKA, NEBRASKA
183 T:
184 TN:No. You'll have to try again.
185 T:
186 J:*W
187 E:

MYSTERY GAME

Students solve a murder mystery from each student's clues. Computers are used to verify if the solution is correct.

Was it Mr. Jones?

Or Mr. Scott?

Or maybe Miss Smith?

Goals:

To provide students with an experience with resource interdependence
To encourage students to discuss conflicting views and ideas
To encourage students to come to consensus

Grade Level: 7 - 10

Time Required: 1 hour

Materials Needed:

Clues written on strips of paper, one per student (see below)
Job assignments for 4 students (see below)
3 computers*

Introduction to the Lesson:

1. Ask students if they have played any games, such as **Clue**, where they have solved a murder. Discuss the method they used to determine the criminal, the time the crime occurred, and the weapon.

2. Tell them they will be working as a class to solve a murder. They are to answer the questions: Who committed the murder? What time did it occur? What was the weapon:? (Use overhead to show the questions.) They are to use the mystery program at each computer to check their solution. If they do solve the mystery they will be given a reward.

3. Each student will receive a clue which will help solve the mystery. It is their responsibility to verbally share the information they receive. They may not pass their strip of paper around to someone else or toss it away.

4. Discuss the need to listen to one another without interrupting. Discuss the consequences of listening and not listening. Using a transparency list the actions which indicate a person is listening.

Authoring system, such as *EZ Pilot II* (see below)
Transparency of questions and blank transparency, pens for transparency**
Overhead projector**
Reward for solving the mystery

If only one computer is available combine the software programs to run on one computer.

**Optional use of overhead projector.

5. Assign three students to work at three computers; one with the software program which confirms the criminal the class selects, one with the software program which confirms the weapon, and one with the software program which confirms the time. Assign one student as coordinator to get the group started and direct the action.

6. Pass out clues.

Group Tasks:

1. Students tell others their clues.

2. Names, weapons, and times are entered into the computers to determine who committed the crime, what weapon was used, and the time of the crime.

Closure:

1. Teacher-led discussion about the murder mystery activity. Using the overhead transparency on listening which the class made earlier, students comment on behaviors they used during the activity. Students then make a list of behaviors which would be helpful if they were to do a similar activity another time.

2. Rewards are given to the class if the questions were correctly answered.

Extension

1. A similar mystery can be assigned to the class.

Teacher Notes:

1. Suggested reward: free computer time, according to group effectiveness in solving the murder. For example, if the criminal is determined on the first guess, the class will receive 30 minutes of computer time. If the criminal is found after 3 guesses the class will receive 10 minutes of computer time.

2. The authoring program may be written to allow only three guesses per question.

Murder Mystery Clues

The following clues are to be distributed on strips of paper, one to each student. If there are more than 27 students in the class assign those without clues one of the jobs necessary for the activity. If there are less than 27 students more than one clue may be given to some students.

When he was discovered dead, Mr. Kelley had a bullet hole in his thigh and a knife wound in his back.

Mr. Jones shot at an intruder in his apartment building at 12:00 midnight.

The elevator operator reported to police that he saw Mr. Kelley at 12:15 a. m.

The bullet taken from Mr. Kelley's thigh matched the gun owned by Mr. Jones.

Only one bullet had been fired from Mr. Jones' gun.

When the elevator man saw Mr. Kelley, Mr. Kelley was bleeding slightly, but he did not seem too badly hurt.

A knife with Mr. Kelley's blood on it was found in Miss Smith's yard.

Mr. Kelley had destroyed Mr. Jones' business by stealing all his customers.

The elevator man saw Mr. Kelley's wife go to Mr. Scott's apartment at 11:30 p.m.

The elevator operator said that Mr. Kelley's wife frequently left the building with Mr. Scott.

Mr. Kelley's body was found in the park.

Mr. Kelley's body was found at 1:30 am.

Mr. Kelley had been dead for one hour when his body was found, according to a medical expert working with the police.

The elevator man saw Mr. Kelley go to Mr. Scott's room at 12:25 a..m.

The elevator man went off duty at 12:30 a.m.

It was obvious from the condition of Mr. Kelley's body that it had been dragged a long distance.

Miss Smith saw Mr. Kelley go to Mr. Jones' apartment building at 11:55 p.m.

Mr. Kelley's wife disappeared after the murder.

Police were unable to locate Mr. Scott after the murder.

When police tried to locate Mr. Jones after the murder, they discovered that he had disappeared.

The elevator man said that Miss Smith was in the lobby of the apartment building when he went off duty.

Miss Smith often followed Mr. Kelley.

Mr. Jones had told Mr. Kelley that he was going to kill him.

Miss Smith said that nobody left the apartment building between 12:25 a.m. and 12:45 a.m.

Mr. Kelley's blood stains were found in Mr. Scott's car.

Mr. Kelley's blood stains were found on the carpet in the hall outside Mr. Jones' apartment.

ANSWER: After receiving a superficial gunshot wound from Mr. Jones, Mr. Kelley went to Mr. Scott's apartment where he was killed by Mr. Scott with a knife at 12:30 a.m. because Mr. Scott was in love with Mr. Kelley's wife.

The above clues have been excerpted from *Learning Discussion Skills Through Games* by Gene Stanford and Barbara Dodds Stanford.

Who Did It?

What Time Was It?

What Was the Weapon?

Student Jobs

The following job descriptions may be mounted on cardboard and given to students for Murder Mystery.

KEYBOARDER I

Boot up the software program Criminal. Type 1. Return. When the coordinator directs you, you are to enter the name of the person the class has selected as a criminal in this murder mystery.

KEYBOARDER II

Boot up the software program Weapon. Type 2. Return. When the coordinator directs you, you are to enter the weapon the class has selected in this murder mystery.

KEYBOARDER III

Boot up the software program Time. Type 3. Return. When the coordinator directs you, you are to enter the time the class has selected in this murder mystery.

COORDINATOR

You are to get the group started and direct the action in Murder Mystery. Tell keyboarders when to input information.

Directions for EZ Pilot II Mystery

Criminal Program

```
1 T:You are to type in the name
2 T:of the person who committed
3 T:the murder.
4 T:
5 T:
6 T:Use the clues from everyone
7 T:to get the answer.
8 T:
9 T:
10 *Q"
11 T:Who was the murderer
12 A:
13 M:Mr. Scott,MR. SCOTT,SCOTT,Scott
14 TY:
15 TY:You got it!! Good work!
16 TY:
17 JY:*E
18 TN:
19 TN:Sorry you haven't got the
20 TN:right person yet. Try again.
21 TN:
22 JN:*Q
23 *E:
24 E:
```

Weapon Program

```
1 T:You are to type in the name
2 T:of the weapon that was used
3 T:to commit the murder.
4 T:
5 T:
6 T:Use the clues from everyone
7 T:to get the answer.
8 T:
9 T:
10 *Q:
11 T:What was the weapon
12 A:
```

```
13 M:knife,Knife,KNIFE
14 T:
15 TY:
16 TY:You got it!!  Good sleuthing!!!
17 TY:
18 JY:*E
19 TN:
20 TN:Sorry, you haven't got
21 TN:it yet. Try again.
22 TN:
23 JN:*Q
24 *E:
25 E:
```

Time Program

```
1 T:You are to type in the
2 T:time that the murder
3 T:occurred.
4 T:
5 T:
6 T:Use the clues from everyone
7 T:to get the answer.
8 T:
9 T:
10 *Q:
11 T:What was the time
12 A:
13 M:12:30 a.m,12:30,twelve thirty,
14 MN:twelve-thirty,TWELVE-THIRTY,
15 MN:Twelve-thirty,TWELVE THIRTY,
16 MN:Twelve thirty
17 TY:
18 TY:That's right!!!
19 TY:
20 JY:*E
21 TN:
22 TN:Sorry you haven't got the
23 TN:correct time yet.  Try again.
24 TN:
25 JN:*Q
26 *E:
27E:
```

Section IV
Appendix

A list of software used in each lesson and its source. An order form for this book.

Software, Publishers, and Computer Lessons

Software	Lesson	or use software that is
APPLEWORKS Computer: Apple Apple 20525 Mariani Cupertino, CA 95014	**Information about Group Members** **Education** **Italian Lunch**	data base data base spreadsheet
APPLE CLASSIC, DISSEMINATION DISK II Computer: Apple CUE SoftSwap P.O. Box 271704 Concord, CA 94527-1704	**Bagels**	
CERTIFICATE MAKER Computer: Apple, Atari, Commodore, IBM Springboard 7808 Creekridge Cr. Minneapolis, MN 55435	**Team Name**	graphics
CREATE WITH GARFIELD Computer: Apple DLM 1 DLM Park Allen, TX 75002	**State Feelings on Group Cartoon**	cartoon graphics
CROSSWORD MAGIC Computer: Apple, Atari Commodore, IBM Mindscape 3444 Dundee Road Northbrook, IL 60062	**Who Fits in the Puzzle**	
EASY GRAPH Computer: Apple, Commodore, IBM Grolier Electronic Pub. Sherman Turnpike Danbury, CT 06810	**Introduce Yourself** **Birthdays** **Favorite Ice Cream Flavor** **Forced Choice**	graphing

Software	Lesson	or use software that is
EZ PILOT II Computer: Apple Hartley Box 419 Dimondale, MI 48821	**Who Am I?** **Word Puzzles** **Mystery Game**	authoring system
MAGIC SLATE Computer: Apple Sunburst 39 Washington Ave. Pleasantville, NY 10570	**Dinner Party** **Perfect School** **Making a Group Limerick**	word processing
MOUSEPAINT Computer: Apple Apple 20525 Mariani Cupertino, CA 95014	**Octopus** **Important Qualities** **Finding Common Interests** **Feelings** **Logical Thinking** **Drawing Idioms** **Listen and Draw**	graphics
NEWSROOM Computer: Apple, Atari Springboard 7808 Creekridge Cr. Minneapolis, MN 55435	**Name Tags** **Team Badge**	graphics
PRINT SHOP Computer: Apple, Atari Commodore, IBM Broderbund 17 Paul Dr. San Rafael, CA 94903	**Introduce Yourself** **Our Strengths**	graphics
SQUARE PAIRS Computer: Apple, Atari Commodore Scholastic, Inc. P.O. Box 7502 Jefferson City, MO 65102	**I'm Proud**	
TEN CLUES Computer: Apple, IBM Sunburst 39 Washington Ave. Pleasantville, NY 10570	**Who Am I?** **Word Puzzles**	

Partnerships:
Developing Teamwork at the Computer

By Mary Anderson, M.A.

Partnerships is designed for teachers using computers. It is a cooperative approach to computer lessons for regular, mainstreamed, and special education students in elementary and junior high school. By using software and the included worksheets, and by following the steps outlined in a lesson, a teacher can facilitate the social growth and collaborative skills needed by children to work in groups. When students learn to communicate, to trust, and to respect each other as unique individuals, they can function effectively and cooperatively at the computer. These lessons are designed to encourage development of these skills.

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